Incorporating *International Commerce*

APRIL 30, 1973

Commerce Today

Coming Developments in Business and Technology

New Game Plan To Aid Exporters

Page 4

FROM THE
PRESIDENT

A Top Priority: Hiring Vietnam Vets

No group of American fighting men was ever called on to demonstrate their bravery, their endurance or their love of country under more trying circumstances than those gallant Americans who served in Vietnam.

Words of thanks are not enough for the two and a half million men who have returned home from this conflict.

We must demonstrate the gratitude we feel by the actions we take. We must honor them with the respect they have earned and the affection they deserve. We must assist them with health care, education, training and housing. These actions alone cannot fully repay the debt we owe our veterans, but they can help.

These are some of the benefits a Vietnam veteran with an honorable or general discharge is eligible for today:

► $220 per month to pay for a college or university education, with an additional allowance for married students.

► On-the-job training or apprenticeship assistance ranging from $40 to $160 per month.

► Free hospitalization for service-connected injuries or illnesses.

► Guaranteed loans to help him buy a house, a mobile home or condominium.

► Monthly compensation for any disabilities suffered in the service.

► Special allowances for clothing, housing and other needs if he is severely disabled.

► And, small business loans to help him start his own business.

In every area of Government concern, we are now doing more than we have ever done before to help our American veterans.

To make sure that Vietnam-era veterans know about all the benefits available to them, we have also launched a massive counseling effort. Veterans Administration spokesmen in Vietnam, Thailand, Japan, Korea, Okinawa and Europe have provided thousands of individual counseling sessions for outgoing servicemen. In Vietnam alone over the past six years, 1.9 million men have been briefed on veterans benefits and 270,000 have had individual interviews.

In all these ways our Government is helping repay our debt to America's veterans. But we must go even further.

With our men home from Vietnam and with the reductions we have been able to make elsewhere in our armed forces, thousands of young veterans are returning to civilian life. They ask no special privileges or favors but they expect—and they deserve—full respect and full economic opportunity.

I call on every American employer to make the recruiting and hiring of Vietnam veterans a top priority.

A good investment

Hiring the veteran is not just a good deed—it is a good investment. The veteran has proven that he is a good worker and a good learner who knows the meaning of discipline and the importance of teamwork.

More and more American employers are demonstrating that they realize these facts. The unemployment rate for veterans in their twenties has been dramatically reduced, from 8.3 percent in the last quarter of 1971 to 5.7 percent in February of 1973. This is important progress, but we must do even better.

Thanks to the sacrifices of our returning veterans, America has achieved peace with honor in Vietnam and the chances for lasting peace in the world are greater today than at any time in our past. Thanks to them, America's word is trusted and America's strength is respected, all around the world.

Just as we have kept faith with our allies abroad, let us now keep faith with our returning veterans at home. They have given much to defend the American way of life; it is time for America to serve them equally well.

(Excerpted from a statement by President Nixon, March 24, 1973).

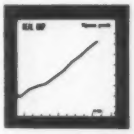
Commerce Today

Incorporating *International Commerce*

Vol. III, No. 15, April 30, 1973

2 Economic Highlights

The nation's production of goods and services continued to expand at a rapid rate in the first quarter of 1973; consumer durables and investment were exceptionally strong.

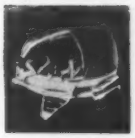


4 Bureau Of International Commerce Has New Direct Service Game Plan

Programs now being built emphasize practical help to U.S. firms while also developing national export awareness.

9 Broader Federal Patent Licensing To U.S. Firms Seen Under New Rules

Regulations issued by the General Services Administration implement President Nixon's directive transferring technology to the market place.



12 Inflexible Raw Materials Create Upward Push On Lumber Prices

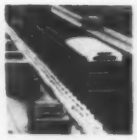
Cost of Living Council, industry spin wheels, work overtime in attempt to find a solution to the sudden need for lumber in this country.

18 Domestic Business Report

Aerospace industry contractors utilizing minority technicians—Active private sector seen vital to energy solutions—Petroleum, meat prices bring new questions about Phase III—Inland barge designs studied for potential pollution reduction.

29 Science & Technology Report

First move made toward Gulf superport—Commercial fishermen may benefit from tuna temperature research—Oceanographic experiment to define currents; affects fishing industry—Industry leaders to play key role in ocean meeting—Patents of special interest.



35 International Commerce Report

World imports up sharply; U.S. share slips—Japanese offer Trade Center use to Americans—Medical equipment trade mission in Spain, Portugal—Economic reports from Netherlands, Philippines, Venezuela—Calendar for world traders—Twenty-one pages of licensing, sales opportunities.

U.S. DEPARTMENT OF COMMERCE

FREDERICK B. DENT
Secretary

B. R. LITTIN
Director of Public Affairs

RICHARD BALENTINE
Acting Editor

CLARENCE M. ZENS
Associate Editor, International Commerce

RICHARD BALENTINE
Associate Editor, Science and Technology

ARTHUR McDERMOTT
Associate Editor, Domestic Business

AMERICO A. W. FAVALE
Coordinator of Graphics

Published biweekly by the U.S. Department of Commerce, Washington, D.C.
Annual subscription rate $33 ($8.25 additional for foreign mailing, $14.30 additional for domestic air mailing). Single copy $1.50. Make checks or money orders payable to Superintendent of Documents and mail to Superintendent, U.S. Government Printing Office, Washington, D.C., 20402, or to any U.S. Department of Commerce Field Office.

All subscription inquiries and address changes should be sent to the Superintendent of Documents, at the above address. This is the central distribution agency for U.S. Government publications.
Microfiche copy available at 95 cents per issue from National Technical Information Service, Springfield, Virginia, 22151.
Other inquiries should be sent to the U.S. Department of Commerce, 14th Street and Constitution Avenue, Washington, D.C., 20230.

Contents of this publication are not copyrighted unless indicated, and if not so indicated, the articles may be reproduced in part or in full without any prior consent. The Secretary of Commerce has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through August 31, 1976.

COVER: *Computerization of the Trade Opportunities scouted abroad by U.S. Commercial Officers is part of a new game plan to increase service to U.S. exporters developed by Commerce's Bureau of International Commerce.*

ECONOMIC
HIGHLIGHTS

Output Continues To Expand At Rapid Rate; Consumer Durables, Investment Lead Advance

Economic Highlights is prepared by the Office of the Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page). The nation's production of goods and services continued to expand at a rapid pace during the first quarter of 1973, with particularly strong growth evident in the consumption of durable goods and nonresidential fixed investment. The growth of other components, while less spectacular, maintained the strong performance of 1972.

The 7.9 percent annual rate of growth in Gross National Product (after adjustment for price changes) in the first quarter is one of the fastest of the current economic expansion, which dates from the fourth quarter of 1970. While it exceeds the 6.4 percent annual gain for 1972, it is, however, slightly less than the very strong 8.0 percent rise reported for the final quarter of last year. Moderation of the real growth rate is generally anticipated later this year as the economy approaches its capacity and moves toward the long-term growth rate of about 4 percent.

The stimulus which has been provided by real durable goods consumption is readily apparent in the middle chart. During 1972, this component of personal consumption spending increased just under 12 percent, a rate almost twice that of real Gross National Product. The first quarter 1973 performance was even stronger, indicating continued demand for real growth. The other components of personal consumption spending have not grown apace. Expenditures for both nondurable goods and for services grew less in 1972 than did the economy as a whole, and the same relationship was evident in the first quarter of this year.

The middle chart also shows the stimulus which has been provided by nonresidential fixed investment. For all of last year, the real rate of growth in nonresidential fixed investment was 17.0 percent, almost three times that of the total economy. The first quarter 1973 performance—similar to real consumer durable goods consumption—was even more stimulative. The strong rise was reflected in both investment subcategories: Nonresidential structures increased 16.9 percent and producers' durable equipment rose 17.8 percent.

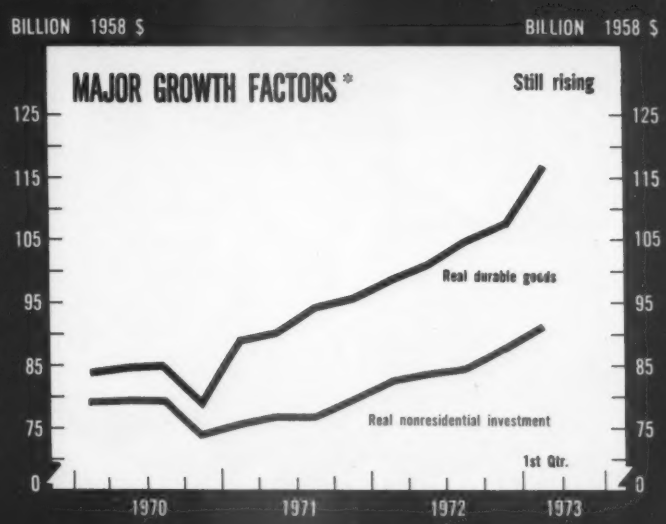
It is interesting to note that the most expansionary elements, consumer durable goods and nonresidential fixed investment, also continue to exhibit favorable price behavior. Consumer durable prices increased at a modest 1.6 percent annual rate in the first quarter, considerably less than the rates reported for nondurables and services. Producers' durable equipment prices also moved up moderately in the first quarter—at only a 1.2 percent annual rate. Sharp price increases for nonresidential structures, however, contributed to the first quarter increase in the deflator.

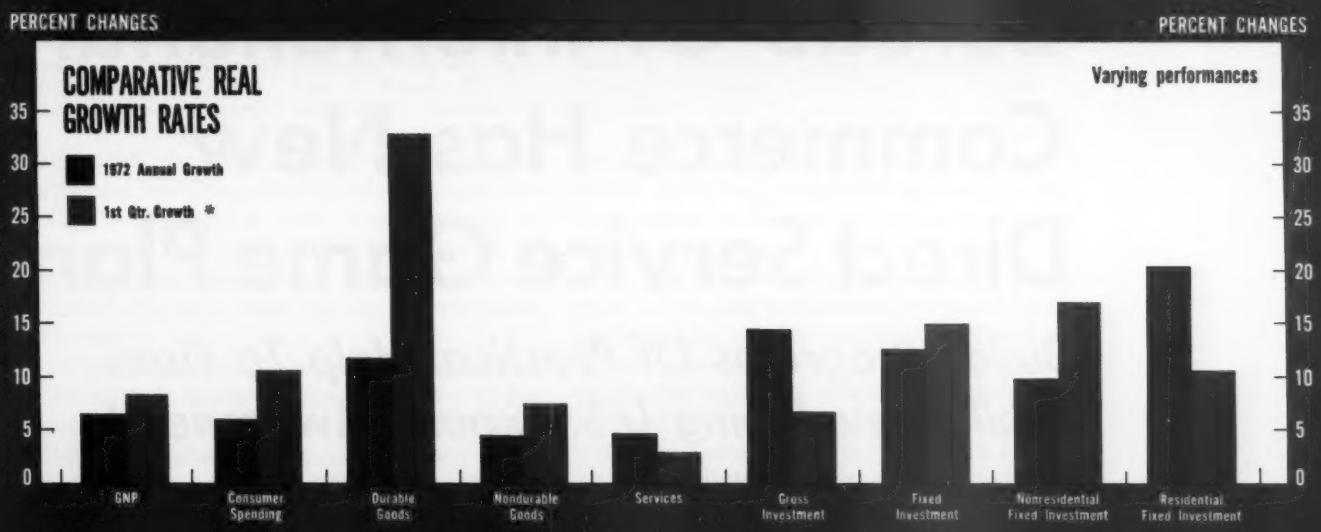
Other major components of real Gross National Product grew less spectacularly in the first quarter. Business inventories grew $2.3 billion less than in the fourth quarter, and government purchases of goods and services (Federal, State & local combined) increased at a rate of only 0.6 percent.

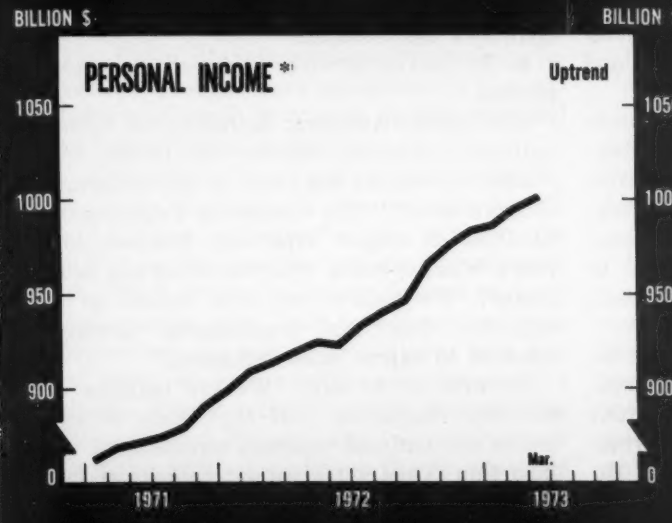
Other economic data

Personal income topped a trillion dollars in March, following another good gain in February. March retail sales rose a strong 2 percent above February and were 16 percent over a year ago.

Latest Indicators







* Annual Rate
All data seasonally adjusted

Commerce Today

Vol. III, No. 15
April 30, 1973

Bureau Of International Commerce Has New Direct Service Game Plan

Builds Programs Of Practical Help To Firms While Developing U.S. Export 'Awareness'

An Illinois manufacturer of precision grinders and other metalworking machine tools recently told Midwestern businessmen that many a small company could match his success in international trade.

The formula for such success that James N. Farley, president of the SpeedFam Corp., outlined at the Chicago World Trade Conference emphasized two points, among others: first, sell the idea of exporting to top management; then, use the services offered to exporters by the Commerce Department's Bureau of International Commerce.

The machine tool executive's comment on the Bureau's work was noted with appreciation by Commerce officials. More important to them, however, was his implicit affirmation of a new Commerce game plan. To sharpen its impact in support of U.S. exporters, Commerce is now following a pattern that could have been lifted straight out of Farley's market-tested formula. It was developed with two goals in mind:

► To sell the concept of exporting to the country's businessmen.

► To provide services of direct use to exporters.

The Deputy Assistant Secretary for International Commerce, Marinus van Gessel, explained the thrust and scope of this program in more detail: "The Commerce Department has had an export expansion function for years. What is really different about our new lineup? We believe we have moved to a simplified functional organization **directly oriented to export sales increases.**"

He went on to say: "We are building a domestic marketing unit that aims to increase the national business commitment to exporting. Then after we get companies interested, we assist them to carry out their marketing plans abroad. We are also placing strong emphasis on solving our trade prob-

STRATEGY SESSION—*Officials of the Bureau of International Commerce meet with Director Marinus van Gessel (left), who is also Deputy Assistant Secretary for International Commerce. They are (from left) Assistant Director Paul E. Pauly; Director, Office of International Marketing, Edward J. Krause; Acting Deputy Director S. Stanley Katz; Director, Office of Export Development, David H. Baker; Director, Office of International Trade Policy, Forest E. Abbuhl, and Acting Director, Office of International Finance and Investment, Charles A. O'Rourke.*

lems with our key competitors—Japan, Canada, and the Common Market. In short, the Bureau is shifting from a reactive to an active role in assisting U.S. business in its international marketing activities — going out to help rather than waiting for companies to come to us."

The Bureau has centered its operations around two major groups, the Office of Export Development and the Office of International Marketing. One operates largely within the United States; the other, outside it. The Office of Export Development conducts activities within the U.S. designed to build export awareness and stimulate overseas sales. The Office of International Marketing, focused overseas, offers assistance to U.S. exporters through a variety of informational and promotional techniques.

Two other offices, International Trade Policy and International Finance and Investment, have high-priority roles affecting the policy environment for exports. For example, the Trade Policy staff assembles and analyzes information that has a bearing on trade legislation and trade negotiations. It is now at work on the principal problem areas—Japan, Canada, the Common Market. The International Finance and Investment staff is in the midst of studies on the operations of multinational corporations. In addition, both offices provide extensive services to the new exporter, ranging from advice on international licensing and investment, export credit, tariff and non-tariff barriers, to representation to foreign governments on commercial policy issues.

On the Bureau's domestic "export awareness" front, the national commitment to exporting is being advanced through direct and indirect approaches to individual producers and to the business community at large. The Office of Export Development, in conjunction with Commerce District Offices, is encouraging potential exporters at "how-to" seminars and following up with personal and mail messages. Banks and carriers are being enlisted as "multipliers" of the Bureau's export expansion drive; so are such bodies as the National Federation of Export Management Companies and the Foreign Credit Insurance Association. State industrial development organizations are encouraged to link their activities with the Bureau's. The export story is told in displays at major trade

U.S. companies may obtain assistance from the Bureau of International Commerce by contacting international trade specialists at Commerce Department District Offices (see list on inside back cover). A schedule of the Bureau's overseas promotions currently open for participation is published once each month in this magazine.

shows in the U.S. and at conventions. Business leaders are appointed as advisers to the Bureau, in effect, as members of National or Regional Export Expansion Councils. Successful exporters are given national recognition through Presidential "E" for Export Awards. And the flow of export stimuli runs both ways: opinions and ideas from the business public are being sought in Bureau surveys and polls.

Meanwhile, in the overseas marketing assistance program, the recent reorganization has meant integration of the trade promotion, informational, and analytical activities into a set of aggressive "country marketing units" staffed by country marketing specialists and headed by a country marketing manager. These teams determine the sales potential for their geographic areas, and then plan the most appropriate combinations of export expansion activities.

For example, the Japan unit is at work currently on exhibitions for the remainder of 1973, six at the Tokyo U.S. Trade Center and two in Japanese trade fairs, plus a promotion of U.S. consumer goods at a prestigious Japanese department store. Three trade missions to Japan are being assisted. The unit continues to publish a steady flow of new business information from Japan—digests of trade and investment regulations, market profiles, trade outlooks.

The country marketing manager for Brazil is aiming at that rapidly expanding market with four trade missions, an equipment catalog display, and an exhibition in Latin America's first aerospace fair. The Brazil unit is also offering ten recent market research studies to inquirers, as part of its range of practical commercial data on the country.

Much of the informational and analytical work of the former country desk officers—specialists who had concentrated on day-to-day study of the market conditions in individual foreign nations—is thus being dovetailed now into direct forms of assistance to American industry.

REGIONAL TRADE DEVELOPMENT CENTER— *One of two trade centers established for regional markets in 1972 was that in Buenos Aires. A large group of executives attended the opening exhibition.*

Into "uncharted" markets

The reorganization has also meant new attention to several relatively "uncharted" markets around the world. For such areas the Commerce Department has established Regional Trade Development Centers. In 1972 two were opened, in Buenos Aires and Beirut; this year three more will be added, in Vienna, Singapore and Tehran. While the export expansion events in these new facilities are being shaped—with the needs of the host areas as well as opportunities for U.S. suppliers being considered—action continues apace at many of the world's blue ribbon trade fairs and at the eight U.S. Trade Centers in London, Frankfurt, Tokyo, Milan, Stockholm, Paris, Sydney and Mexico City.

SpeedFam president James Farley, whose advice to fellow businessmen was referred to earlier, commented at the Chicago World Trade Conference about the value of these trade shows. In urging potential exporters to use them, he said:

"SpeedFam has participated in Commerce exhibitions in Europe, Mexico, Brazil and Japan and is scheduling one in Czechoslovakia and, hopefully, Russia. This is one of the best marketing tools we have found. It is available not only to the neophyte but to the so-called 'old timers' in the field. They are taking advantage of the opportunity offered by the Bureau of International Commerce. I personally think this is an outstanding service offered by the Government to any firm that wants to enter export markets."

The Bureau is continuing to conduct other overseas promotions that involve the direct participation of U.S. companies—trade missions, catalog displays, technical seminars, and conferences for foreign investment in the U.S.

Three initiatives of the revamped Bureau

FOREIGN PROJECTS REFERENCE ROOM—*A recent user of Commerce's reference room for major overseas projects was John E. Murphy, Vice President of Booz-Allen & Hamilton International, Inc.*

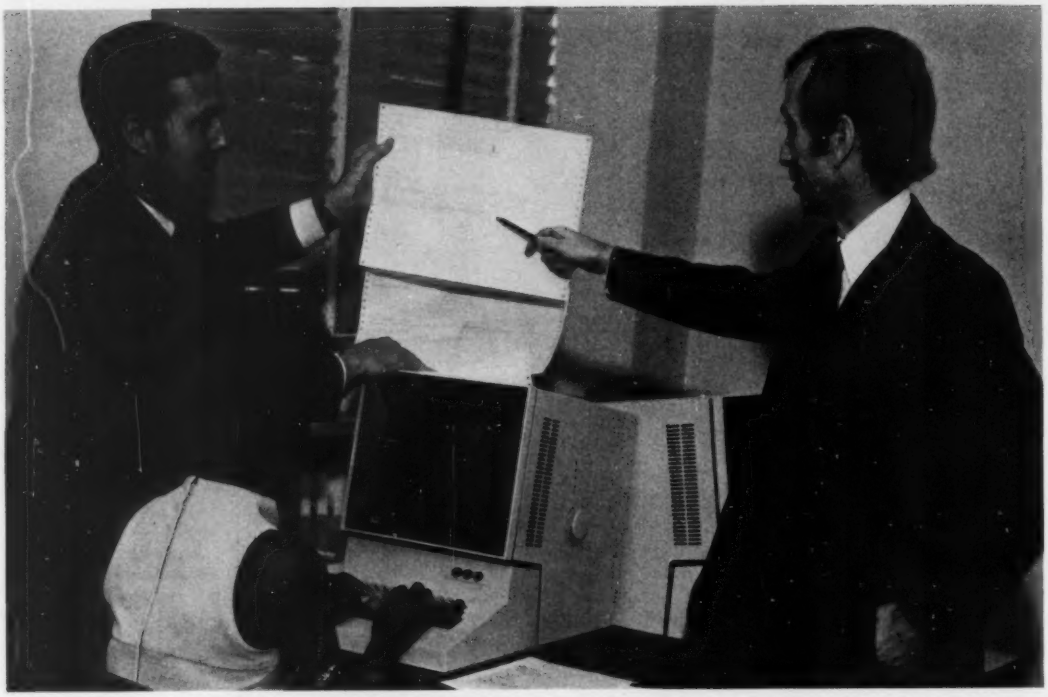
of International Commerce deserve special notice. One is designed to target in on the opportunities in world markets for certain U.S. industries that have technological or other current competitive advantages. The second is a cooperative effort with the Department of State to improve the services to American companies by the worldwide network of U.S. Commercial Officers abroad. And the third is the increased emphasis on assisting U.S. business in competing overseas on major projects.

The **Target Industry** program concentrates the Bureau's market information resources and overseas trade promotion activities on the products of industries deemed to have the best immediate export potential in countries or regions judged to have the highest current sales opportunities. This program, which covers almost every export step from market research to assistance in locating agents and distributors, has been in operation on a pilot basis for more than a year. Industries already involved are: electronic data processing; food processing and packaging; pumps, valves and compressors; agricultural machinery and equipment; instrumentation; and air conditioning and refrigeration equipment. It involves personal calls by Commerce trade specialists from the 43 District Offices on the companies in these industries, introducing them to the array of Commerce services and persuading them to initiate exporting.

Stepped-up teamwork with the economic-commercial specialists at U.S. Embassies and Consulates is being charted at Commerce through preparation of annual action plans called **Commercial Country-Programs.** Using the Target Industries as a base for determining the potential of the local market abroad, and assessing U.S. share of market, ability of U.S. firms to sell competitively, etc., the Bureau and the U.S. overseas missions reach agreement on the mix of American Government-supported activity that is indicated for the particular country. From this emerges a unified, clearly understood plan—a Country-Program—that covers the commercial goals a specific Embassy or Consulate is expected to reach, the tasks which will assist it to meet these goals, and the support to be provided by the Commerce and State Departments.

The Major Projects emphasis is reflected in a strengthened cooperative effort between the American ambassadors overseas and the Bureau's project managers in Washington, to assist U.S. industry in bidding against its competitors for big-ticket, $5 million-or-more export contracts. Utilizing an early-warning system, the Bureau collects and inventories key information on such major overseas projects as airports in Afghanistan,

U.S. businessmen can review major foreign projects under consideration by international financial institutions in a Foreign Projects Reference Room maintained by the Bureau of International Commerce—room 3411 of the Main Commerce Building (phone 202-967-3600).



COMPUTERIZING TRADE OPPORTUNITIES— *Sales opportunities for U.S. suppliers, telegraphed to Washington by U.S. Commercial Officers overseas, are sped to American firms by Josephine Johnson. Observing are Derek Pomfret (left) and Arthur Rice, of the Bureau's Export Information Division.*

a subway in Hong Kong, or a railway electrification system in Taiwan. Project managers then notify U.S. industry, and set out to assist an American company to win the bid.

The exporter is beginning to get concrete benefits from these initiatives. One instance is the new, faster-paced handling of the Trade Opportunities that are being continually scouted for American suppliers and contractors by the overseas Commercial Officers.

Under the previous procedures, after a prospective customer in Kampala, Kingston, Kobe or Kuwait had asked for a quotation from an American supplier, an average of 26 days elapsed before the airmailed request found exposure in the columns of *Commerce Today's* Worldwide Business Service pages. Today, through telegraphic transmission and through publication in *Commerce Business Daily* (as well as in *Commerce Today*) this time of transmittal has been cut to 7 days.

Meanwhile, the Bureau has begun mailing these Trade Opportunities directly to listed companies in the "Target Industry" groups, when products in these industrial groups are requested. Soon this direct mail service will be fully automated, using computer terminals and high speed printers that will reproduce the Trade Opportunities in sealed, addressed envelopes.

The effect of the speeded-up system has been dramatic. One U.S. Foreign Service post in Europe reports that buyers in its area are being contacted by U.S. suppliers 14 days after their requests are sent on.

These new trends and directions in the Bureau of International Commerce are to be subject to continuous examination and review. Emphasizing the pragmatic emphasis now dominant in the Bureau, Deputy Assistant Secretary van Gessel promises:

"Each program is to be analyzed as to its dollar contributions to the merchandise trade account, assessed as to its 'customer demand,' and ranked as to its importance to national export expansion. Of course, Commerce's export expansion activities are only a part of the Administration's efforts to help correct the trade account, but they serve as a useful positive stimulus to U.S. business, particularly now that we are in a better competitive position since the recent currency realignments."

***A companion agency to the Bureau of International Commerce to handle trade matters relating to Eastern Europe and the People's Republic of China has been established in the Department of Commerce. An article on this Bureau of East-West Trade was published in the Jan. 8 issue of* Commerce Today.**

Broader Federal Patent Licensing To U.S. Firms Seen Under New Rules

Implements Presidential Directive Aiming To Transfer Technology To Marketplace

Broader licensing of Government-owned patents to U.S. business is expected as a result of recent licensing regulations issued by the General Services Administration implementing President Nixon's August 1971 directive on patent policy.

Patent experts have long realized the gold mine of Government-developed technology which could be spun off into commercial products and processes. How to make the process fair to both the public and private industry has been the question? Until now, actual licensing of Government technology has been relatively sparse compared to the volume of technology available.

Most have been National Aeronautics and Space Administration patents resulting from the nation's successful space program and patents held by the Atomic Energy Commission.

An anti-fogging compound developed to eliminate fogging of astronaut's face visors, a problem first discovered during a Gemini space walk, has been licensed to 61 firms. The coating has been used by more than 20 companies and has been found useful for scuba diving and skiers glasses, bathroom mirrors in the home, as well as for truck and car windshields. Several small firms have been formed expressly to market the compound.

A lightweight, inflatable, non-tippable, radar-reflective life raft, originally developed for the safety of astronauts, is now marketed commercially as a result of an exclusive Government license granted to a research biologist whose pilot son died of exposure in a life raft following a Coast Guard aircraft crash off Alaska. A floating raft equipped with a tarp of this radar-reflecting fabric is detectable by aircraft radar at distances of 15 miles. Aircraft flying as high as 6,000 feet have spotted men on the water below wearing life jackets made from this same fabric.

Under the new GSA regulations, nonexclusive licenses are generally preferred since all interested parties would be able to utilize the inventions, provided they could be pro-

ANTI-FOGGING COMPOUND—*Skier's glasses can fog up in the heat of a slalom, the same trouble encountered by astronauts during space walks. A compound developed by NASA for space face visors has been licensed to 61 firms for commercial production and several small firms have been formed expressly to market the product.*

moted commercially without exclusive rights.

Some Government developments have been in wide commercial use through a nonexclusive licensing policy, particularly when the Government develops the invention to the point of practical application. The anti-fogging compound is an example.

Exclusive right for a limited period of time will be granted by the Government when it appears that this incentive is necessary to attract the investment capital for technical and market development. The period of exclusivity must be less than the remaining life of the patent. Normally it will be no greater than five years unless a longer period is necessary to recoup the costs of development.

Before granting an exclusive license, the invention must have been published as being available for licensing for at least six months, and the Government must determine that:

- The exclusive license is likely to bring about the desired commercial use;
- Use has not been achieved under a nonexclusive license; and
- Use is not likely to be achieved more expeditiously by nonexclusive licensing or by further Government-funded development.

The regulations stipulate that in selecting between two or more applicants for an exclusive license, consideration will be given to the capabilities of prospective licensees to further the technical and market development of the invention; their plans to develop the invention; the impact on competition; and the benefits to the Government and the public. Also to be positively considered is an applicant's status as a small business, or minority business enterprise; the applicant's location in an economically depressed, low income, or labor surplus area; and whether an applicant is a citizen or corporation of the United States.

All licenses, exclusive and nonexclusive, are for a specified term, and require the licensee, or licensees, to bring the invention to the point of practical application; that is, to commercially work the invention, within an agreed-upon period. Continuation of the license will depend upon achievement of this requirement, along with continuing to make the benefits of the invention accessible to the public. When an exclusive term expires, nonexclusive licenses may be granted for the remaining term of the patent.

Exclusive licensees have the right to sue those who may infringe their licensed patents during the period of exclusivity, but at their own expense, specifically without expense to the United States. Upon consent of the Attorney General, a licensee may join the Government in infringement suits; the regulations give the Government an absolute right to intervene at its own expense.

Royalty-free licenses

An exclusive licensee will be required to expend specific amounts of money, and/or take other specified actions within stipulated time periods, to commercialize the invention. An exclusive license may also be required to pay royalties to the Government, but nonexclusive licenses are normally royalty-free to U.S. citizens or corporations. However, the Government may require a one-time licensing fee.

GSA regulations contain an unusual twist in that they specifically provide for granting licenses in particular fields of use and/or in particular geographical locations—a practice normally attacked by the Department of Justice in commercial licensing. After the period stipulated in a nonexclusive license for commercializing the invention has passed, the license may be restricted to those fields

of use and/or those geographical locations where the licensee has actually worked the invention commercially.

With these provisions, it would be possible for the Government to grant nonexclusive licenses on a patent in one field of use, while granting exclusive licenses in other fields of use, or in different geographical locations. NASA, one of the few agencies to have exclusive licensing programs prior to the GSA regulations, has already granted exclusive licenses on a single patent in different fields of use.

The regulations call for listing of government-owned inventions available for licensing in the Federal Register, in the Official Gazette of the United States Patent Office, and in at least "one other publication."

Through coordination with the Committee on Government Patent Policy of the Federal Council for Science and Technology, arrangements have been made for patent applications filed by the various agencies since the beginning of Fiscal Year 1973, and patents issuing to the agencies from that date, to be transmitted to Commerce's National Technical Information Service (NTIS). NTIS will add these patents and patent applications to its computer base, publish abstracts of the inventions (as it does other technical documents produced by the Government) in its abstract journals, and will identify the inventions along with other technical documents to members of the public requesting searches of Government technology. Additionally, NTIS will have lists of these patents and applications published on a regular basis in the Federal Register, which will then be republished in the Official Gazette.

Notices required

Periodically, NTIS will produce a volume of patent abstracts, categorized by field of technology. Efforts are in the planning stage to produce a categorized listing or abstracting of at least a portion of the patent portfolio which the Government now owns. At the present time, the exact nature of this publication has not been determined.

Copies of issued patents can be procured from the United States Patent Office, while copies of patent applications can be obtained from NTIS. Requests for licensing information should be directed to the particular agency which has sponsorship of the invention.

Additionally, the regulations require notices to be published in the Federal Register of an intent to grant an exclusive license, and whenever an exclusive license has been granted, modified or revoked. The purpose of publishing an intention to grant an exclusive license is to give a final opportunity for those who want to demonstrate that they are willing to achieve commercialization under a nonexclusive license, and for third parties to establish that the granting of an exclusive license would not be in the public interest. After an intent to grant an exclusive license has been published, however, competing requests for an exclusive license will not be accepted.

RADAR REFLECTIVE—*An inflatable radar-reflective life raft, now being used by the Coast Guard and being marketed commercially, was originally developed by NASA for U.S. astronauts. An exclusive Government license was granted to a research biologist whose son died of exposure in a life raft and was motivated to develop a product which would save other downed fliers or seamen in need of rescue.*

In addition to the new aspect of exclusive rights, the GSA licensing regulations make one other substantial change to prior government policies. The regulations stipulate that ". . . no license shall be . . . implied in a government-owned invention. . . ." This language is directed toward overcoming the United States Court of Claims' holding in the case of *Tektronix* v. *United States* (1965) that because of prior policies of some Government agencies in permitting and encouraging unlicensed use of their inventions, an implied license for such use results.

With an announced policy negating implied licenses, providing for express licensing, and allowing exclusive licensees to bring suit against infringers, industry can no longer treat Government patents as being in the public domain. —*Patent Office*

Strong Housing Market Causes Upward Push On Softwood Lumber Prices

Prolonged Building Boom Keeps Demand High; Government, Industry Seek Solutions Soon

"Quite frankly everyone has underestimated the extent of lumber demand and now we're suffering the consequences."

This statement by John M. Camp, Jr., president of the Southern Forest Products Association, mirrors the dimensions of a problem that has the Cost of Living Council and quite a few others in government and industry working overtime in an attempt to find a solution.

The problem — rising softwood lumber prices.

On the perimeter of the complex lumber price lies the United States' imports from Canada, and sales of U.S. lumber to the Japanese. Then there is a shortage of rail boxcars, accentuated by the sale of wheat to the Russians. (Lumber and plywood are heavy, low-value products, and the wheat sales took a few more of the already scarce boxcars.)

And, the energy crisis. Shortage of fuels is said to have forced curtailment of production in some mills.

Nevertheless, the root causes of the real problem can be reduced to supply and demand.

"A wild swing in housing starts and an inflexible raw material supply," Camp describes it. Camp, also manager of building products for the Virginia Division of Union Camp Corp., was among industry leaders who testified at three days of public hearings held by the Cost of Living Council. Camp's organization represents lumber manufacturers in 12 southern states.

Lumber controls

The Cost of Living Council is considering whether to impose controls on the lumber industry. In addition, congressional hearings have been held on proposed legislation on the problem.

Between Jan. 12 and March 16, according to Dr. John T. Dunlop, director of the Cost

of Living Council, the price of a standard and better kiln-dried Douglas Fir 2 x 4 increased 25 percent and, during this same period, the price of 3/8 inch AD interior sanded plywood increased 98 percent. Dr. Dunlop calls it "predominantly demand-induced inflation," noting a sharp increase in new housing construction in 1972, continuing into 1973.

"Given a desired high demand for lumber and wood products," Dr. Dunlop says, "the only way to maintain price stability in these markets over an extended period is to increase the supply of these products."

During 1972 the year's total new housing starts reached 2.4 million units of which 1.3 million were single family structures, according to the Council of Economic Advisers.

The outlook for housing starts in 1973 is for approximately 2.2 million new units, a reduction of approximately 10 percent over 1972.

Residential construction

Gary M. Cook, Deputy Assistant Secretary and Acting Director of the Bureau of Competitive Assessment and Business Policy, in testimony before the Housing subcommittee of the Senate Housing and Urban Affairs Committee, noted that softwood lumber represents about 10 percent of the construction price of a detached single family unit. Approximately 40 percent of softwood lumber consumption is used in residential construction.

Softwood plywood represents about 2 percent of the construction price of a detached single family unit, Cook noted further. Over half—56 percent—of the softwood plywood is used in residential construction.

Virtually everyone who testified at the Cost of Living Council hearing opposed the reimposition of the Phase II controls system on this market.

Dr. Dunlop and a large contingent of government and industry representatives favor increased use of the national forests, where a majority of the timber supply lies. About 53 percent of all commercial softwood sawtimber inventory is in the national forests, about 12 percent is other public lands, and 35 percent is privately owned.

Another view is taken by Sen. Robert Packwood of Oregon, who has introduced legislation to place a ban on log exports from Federal lands by Jan. 1, 1974, phasing out state and private log exports by Jan. 1, 1977.

DOUGLAS FIR—*Part of an Iron Creek timber sale in Pinchot National Forest in the state of Washington, this large Douglas fir tree topples over.*

Still another view is to do nothing, assuming that the problem will go away. As in 1968, some believe, today's lumber price crisis will pass and lumber prices will level off when housing construction tapers off as it is expected to do later this year.

Census Bureau figures do show that housing starts, on a seasonally adjusted basis, were up in January but declined slightly in February and dropped even further in March.

National forests

"The national forests, in contrast to private forest lands," Dr. Dunlop says, "must serve as the primary source of increased timber in order to satisfy higher projected lumber requirements during the decade of the 70s."

The trees are there, especially in Washington and Oregon. And lumbermen in that area depend on the national forests for the major portion of their timber supplies.

Cutting is restricted in national forests by virtue of the process involved in preparing national timberlands for auctions. Recent increased attention to the natural environment in planning timber harvest activities has resulted in more money necessary

to prepare a timber sale. Before selling the trees the U.S. Department of Agriculture's Forest Service or the Interior Department's Bureau of Land Management has to undertake environmental analyses, mark the trees, layout of roads, and do other presale work.

Japanese buying logs

In the export-import picture, the United States in 1972 imported about 9 billion board feet of softwood lumber, primarily from Canada. U.S. imports of softwood logs are insignificant.

In 1972 the U.S. exported about 1.2 billion board feet of softwood lumber with the principal customers being Japan, Canada, Italy and West Germany. In addition, about 3.0 billion board feet of softwood logs were exported by the U.S. primarily to Japan.

"The 1972 record housing year was also a record year for softwood log exports," Cook explained. "These exports increased from 450 million board feet in 1962 to more than 3.0 billion board feet in 1972."

Exports to Japan increased from 326 million board feet in 1962 to 2.5 billion board feet in 1972, Cook stated further.

However, he added, in terms of percentage of domestic production, 1972 exports of logs are not likely to exceed the 1970 peak of 7 percent.

Commerce is involved in the softwood lumber price issue primarily because it has responsibility for administering the Export Administration Act. The Act authorizes controls over exports for several purposes, including domestic "short supply."

Short supply controls, according to Cook's testimony, can be used under the act only "to the extent necessary to protect the domestic economy from excessive drain of scarce materials and to reduce the serious inflationary impact of abnormal foreign demand."

Cook told the subcommittee his agency is continually monitoring the supply, demand, and export situation to determine whether circumstances meet export control requirements.

He noted that softwood log and lumber exports contributed about 6 percent of the increased annual consumption of softwood sawtimber over the past two years; whereas housing demands represented about 89 percent of the increase.

In addition, Cook said, the U.S. embassy in Tokyo has discussed with the Japanese Government officials and importers the price pressures in the U.S. on softwood logs and lumber, and relationships between these price pressures and U.S. softwood log exports to Japan.

"Japanese officials indicated that they are aware of the problem and are taking a series of actions to ease these pressures," Cook testified. "Japan is seeking increased imports of softwood lumber and logs from other sources, such as Canada and the Soviet Union."

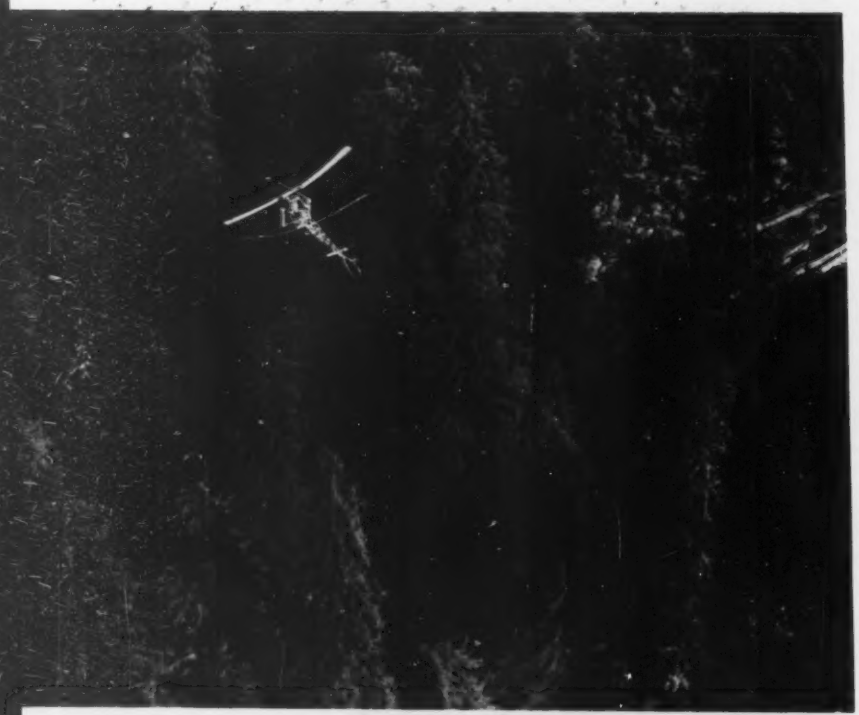
Strong guidance

Finally, Cook said, "the Japanese government will give strong guidance to Japanese importers to insure that Japan's log imports will not inconvenience the U.S."

Cook also noted that softwood exports are tied to the Northwestern states, with Washington and Oregon accounting for about 86 percent of total U.S. softwood log exports.

Thus, he pointed out, the economic benefits of log exports are greatest in this region which has been troubled with high unemployment rates in other industries.

Sen. James A. McClure of Idaho, told the Cost of Living Council that Congress, in 1968, established housing goals of 2.6 million new and rehabilitated units per year for



WASHINGTON—*A helicopter flies down a Washington canyon spraying Zectram spray in one of the Forest Service's Hemlock looper spray projects.*

10 years and the goal isn't being met.

"Congress will not back away from the commitment to provide decent housing for Americans as a possible solution to easing the pressure on lumber demands," asserted Sen. McClure. He said it is also incumbent on Congress to make the commitment for providing raw materials for this housing.

McClure told the Cost of Living Council that on those public and private forest lands that are responsive to intensive forest management, there needs to be the commitment and funding for long-range availability of sustained yield production.

"Funding, manpower and timber access are all key targets to accomplish the job," Sen. McClure contended.

An opposing view

Richard L. Eberharter, representative of the Associated General Contractors of America, recommended to the Cost of Living Council that a program be implemented and funds be provided to increase drastically reforestation and future production on U.S. forest lands, and that a halt be placed on future exportation of cedar, Douglas fir, and other species in high demand and short supply.

Associated General Contractors, Eberharter said, supports the intent of the legislation sponsored by Sen. Packwood.

Eberharter stated that the lumber export market has a definite effect on the local market in that the export market provides the impetus for all price increases even though it may represent a small percentage of the total market. Under normal conditions, he testified, the export market can serve as a stabilizing influence on domestic lumber prices.

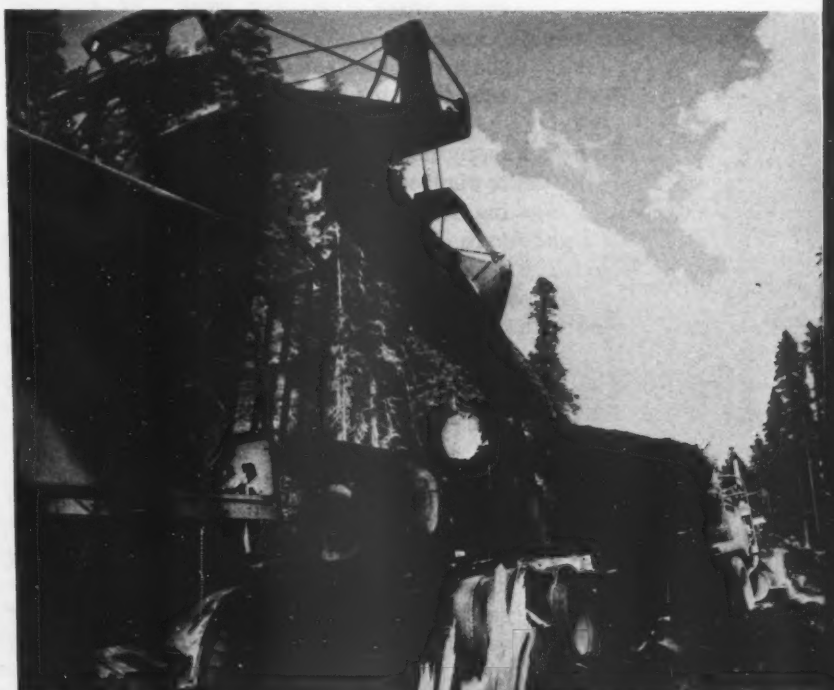
However, he continued, with the great overseas demand, and as long as the present export policy prevails, there will not be the necessary slack in the demand situation to allow any price stability.

Impact of exports

"We feel the impact of log exports is negligible in our own balance of payments problems and will never solve it, even if all our forests are denuded," he asserted further.

"An immediate solution to this problem is necessary to avoid irreparable damage to the buying public as well as the construction industry," Eberharter warned. "The public and the construction industry are on a collision course with economic disaster because the current lumber crisis has not been anticipated to the extent that presently exists."

SKIDDING—*Another Oregon forestry scene is skidding. This U.S. Forest Service photo shows a workman unhooking a turn of logs at a landing.*



LOADING LOGS—*National Forest Timber sale for right of way clearing for new section of Lake of the Woods road. This U.S. Forest Service photo shows loading fir and Douglas fir logs for hauling to the mill in Klamath Falls.*

"Our industry is very closely controlled by the law of supply and demand," Eberharter added.

"Contractors have been confronted with a situation of trying to get lumber and plywood at a competitive price, but the supply is short and the prospects are for the shortage to become even more acute in the future," he concluded.

Another view

". . . Prices afford the primary incentive to achieve the volume of production necessary to bring supply into balance with demand," says Ralph D. Hodges, Jr., executive vice president of the National Forest Products Association, a federation of 25 regional and product organizations representing manufacturers and wholesalers of wood products throughout the United States and Canada.

"Freedom of action" under Phase III has brought forth increased production, Hodges testified at the Cost of Living Council hearing.

"Higher prices for wood products since Jan. 11 have made it possible for work shifts to go into overtime, to put on an extra shift or to work a six-day week," he asserted. "Some mills have been able to draw down their inventory of scarce timber at a faster rate than they would under lower prices.

"This is particularly significant since many mills are uncertain about their ability to replace their timber in the face of declining federal timber sales."

In other words, Hodges continued, "the higher prices in today's market have encouraged some mills to jeopardize their futures.

"Without the incentive of higher prices," he warned, "the mills are under no compulsion to produce."

Product profile

Lumber is one of the most complex products in the market. It comes in many different species, sizes and grades. The lumber industry is marked by a high degree of competitiveness with prices normally reflecting demand and availability of the required species, sizes and grades or qualities of production runs.

However, an overall increase in production does not necessarily mean an increase in a particular species, size or grade. The supply of specific species of lumber can vary and become in short supply. The variation is based to some extent on the availability of timber and the proper scheduling of bidding and logging to bring the supply to the manufacturer at the right time.

As a result, price fluctuations are common on a short term basis, as certain species, sizes or grades become in short supply.

Although the lumber and wood products industries employ only slightly more than half a million people, they play a vital role in the local community where the manufacturing facilities are located. Many sawmills or other wood processing plants are located in rural areas or near small towns and provide the source of local employment and income. Census statistics do not break down employment in the softwood industry.

About 20 to 25 percent of the total softwood production is southern pine and between 55 to 60 percent is of western species.

The bulk of lumber products is moved through wholesalers. The balance goes directly to the user, the retailer, to company-owned distribution yards, and to factories for remanufacture.

Shipment value

In 1971, the 20 largest producers in the softwood lumber industry were credited with about 10 billion of the total 36.6 billion board feet of lumber (softwood and hardwood) produced, or about 27 percent of the total.

The value of shipments for the softwood lumber industry in 1967 is estimated at $2.5 billion. Value added for the softwood lumber industry is not reported separately by Census. However, value added for total lumber and wood products in 1970 was 5.9 billion as reported by Census.

The structure of the softwood plywood industry is changing with greater emphasis on growth apparent in the South. The "comer" in the softwood plywood growth is southern pine. Growth in production of this plywood species should outpace all western species of plywood by about 6 percent in 1973.

Overall U.S. softwood plywood production per plant gained an estimated 32 percent from 71 million square feet in 1967 to 94 million in 1972. During the 1967-1972 period total U.S. softwood plywood output increased 42 percent from 12.8 billion to 18.3 billion square feet.

Value of shipments for softwood plywood plants as reported by Census were $959 million in 1970.

—BCABP

Newsmemo

The U.S. balance of trade may come into the black by midsummer. So says Eximbank president Henry Kearns, pointing to these factors: a slowing in orders for imports, increases in export orders supported by better price-competitiveness and good financing packages, lower inflation rate here than in competitor nations, tremendous market for U.S. farm products, continued world appeal of attractive U.S.-produced goods.

But over the longer term the U.S. is in deeper competitive trouble than its complacent citizenry is willing to admit. That was the warning given to the Cleveland World Trade Conference by lawyer-industrialist Ralph M. Besse, who says "A competitive position is achieved by producing a better product cheaper...the area in which business has the greatest stake, the greatest knowhow and the greatest responsibility for action. It is an area also of tremendous political orientation because it involves labor policies, tax policies, research policies, management policies, investment policies, work habits, public attitudes, standards of living and much more." His point: is the U.S. truly determined to be competitive?

Porpoises are being taken off their electronic spy patrol duties by U.S. tuna fishermen. Commerce's National Oceanic and Atmospheric Administration has issued regulations prohibiting the fishermen from putting radio transmitters on the backs of porpoises and the industry is now complying. Porpoises tend to swim above schools of tuna--and also tend to get caught in tuna nets. As a radio-equipped porpoise surfaced, its antenna broadcast a beep homing signal to fishermen up to 15 miles away.

Forty-five percent of American families report wages or salary as their only source of income. A new Census Bureau report based on the 1970 Census shows that some 22.9 million American families reporting wage or salary income--and no other--had a mean total income in 1969 of $10,206. Another 3.9 million families with earnings only through wage or salary or self-employment income had a mean total income in 1969 of $12,126.

A 95 percent increase in the value of the property tax base in the U.S. was recorded between 1961 and 1971. So reports a survey done as part of the Census Bureau's 1972 Census of Governments, a five-year canvass of governmental activities. Even though property taxes remain the prime source of revenue for local governments, they now constitute a smaller percentage than ten years earlier--dropping from 46 to 40 percent from 1961 to 1971. Intergovernmental revenue increased from 27 to 34 percent in that period.

A bumper sardine catch is expected by New England fishermen this year. The National Marine Fisheries Service of Commerce's National Oceanic and Atmospheric Administration is making the estimate, based on larval herring spawn figures, winter mortality and spring abundance observations in 1971 and 1972. If all goes well in the harvest, the 1973 total could top the 22.2 million pounds harvested in 1971 (latest available data). The U.S. imports most of its sardines, more than 50 million pounds on the average over the past five years, compared to average domestic production of 27 million pounds.

DOMESTIC BUSINESS REPORT

- Aerospace contractors utilizing minorities
- Active private sector vital to energy solutions
- Personal income tops trillion dollar mark
- Atomic power will propel vessels in future

Centers Spur New Business Development

Metropolitan Washington's highest ranking business leaders are committing their resources, talent and experience to a new minority business development tool that sets a fast pace for the rest of the Nation—the Metropolitan Washington Business Resource Center.

To date 19 Centers have been established by Commerce's Office of Minority Business Enterprise in what is expected to become a nationwide network of 50. Operating funds come from government and the private sector.

What makes Washington's Center unusual is the extent to which it has caught on — almost overnight, since its professional staff of six began work last October—drawing heavy commitments of time and energy from what its director, Darryl Hill, calls the "foremost establishment-oriented" businessmen in the community. And, it's in a 71 percent black community—the Nation's Capital—where 2,400 minority-owned businesses represent only 10 percent of the total business ownership.

The Center, says Joseph B. Danzansky, president of Giant Food, Inc., is "short on rhetoric and long on pragmatism—the kind of program a businessman understands and respects."

Businessman's approach

Danzansky is chairman of the Washington Center. Its board of directors draws from top level management of a cross section of Washington's largest and most influential businesses.

"It (the center program) has established an efficient mechanism for effective participation of the established business community in minority business development," Danzansky asserts.

Terrence Scanlon, Director of OMBE's Business Resource Center program, said, unlike the Business Development Organizations (BDO's) the Centers (such as Washington's) have little initial contact with the minority businessman. They generally get their clients through local BDO's. Yet, they may be his most effective tool in actually carving out a successful business.

The Washington Center's effectiveness lies in its "clout" to get the job done. "Clout" like Danzansky's and the Center's highly skilled professional staff to marshal technical assistance, develop markets and stimulate capital.

"Bankers, lending officers and everyone from airlines to newspapers are ready to use the services

our Center offers," says Hill, "because they realize a strengthened client (or customer) is a strengthened community."

"We will see to it that any minority applicant or lendee in the Metropolitan Washington area receives all the technical assistance that the bank feels he needs once it makes the loan," says Hill. "This has had the effect of making banks better disposed to put out the money."

Noting that the Center works to bring minority companies and individuals up to bank standards, Hill added that the Washington organization also checks on delinquent loans to see if the minority individual or business may have a problem that can be alleviated with professional guidance.

It is able to do this through its massive linkup with volunteer consultants.

Expert consultants

"We now have enough consultants to make one-for-one longterm matchups with minority businessmen," Hill stated. "We have 150 firms committed to volunteer technical assistance in every area of business development.

These include four of the largest supermarkets, three of the five largest accounting firms, all the utilities, both local newspapers, three universities, 23 trade associations and other groups and individuals.

Another program that sets the Washington Center apart from others is its series of seminars for bankers on how to evaluate and service minority loans and investments. And, its sophisticated financial consultation sessions which bring the cream of the financial community together to develop new concepts and techniques to eliminate long-standing problems in areas of finance.

Probably the Center's most important function is in the area of market development. After channels of capital are opened, the mi-

BUSINESS WITH BANKS—*Darryl Hill, Director of Washington Business Resource Center (left), and Pete Weaver, Deputy Director, enter a Washington bank to check on services for one of the Center's clients. BRCs work closely with banks.*

DANZANSKY SPEAKS—*Joseph B. Danzansky, president of Giant Food, Inc., and chairman of the Washington Business Resource Center, addresses National Conference of BRCs, sponsored by OMBE, in Washington recently.*

Theodore Hagans
Co-Chairman
Washington Center

nority businessman must find markets for his products and services. The National Minority Purchasing Council has local councils to implement its policy of getting purchasing commitments from companies. One of these is operated by the Washington Center.

"Many companies just don't think much about minority purchasing until it is brought to the attention of top level management," says Hill. "We take them on a one-by-one basis and match minority products and services with each purchaser's needs. Good buyer-seller matchups are very important to us. It must be a professional operation."

Other centers

OMBE's Business Resource Center program already stretches from Los Angeles to St. Louis to New York, and delves into the deep South, with units at Miami, Charlotte, N.C., Chattanooga and Memphis, Tenn. Others are in Cincinnati, Detroit, Kansas City, Phoenix, Dallas, Washington, D.C., Philadelphia, Chicago, Louisville, Ky., Pittsburgh, San Antonio and Rochester, N.Y.

Aerospace Industry Contractors Utilizing Minority Technicians

Aerospace industry contractors are being encouraged—and an aggressive new program undertaken by the National Aeronautics and Space Administration—to utilize minority subcontractors in the highly technical areas of the industry.

Minority firms' role in aerospace has been limited by lack of sufficient expertise, size or experience to compete in the multi-billion dollar industry. This score is being changed in part by the new program and the response of one contractor, Informatics Tisco, Inc.

NASA recently awarded $410,000 in subcontracts to three black-owned companies for technical and production activities in the operation of its Scientific and Technical Information Facility in College Park, Md.

The facility, operated for NASA by Informatics, since 1968, is a major repository of aerospace scientific and technical documents. More than a million reports and articles are in the facility's data bank. The information is made available throughout Government, universities and the aerospace industry.

In accepting its new annual contract of more than $3 million, Informatics agreed to plan specific goals for minority business subcontracting. Sixteen minority-owned firms bid for one or more of the four technical and production contracts offered. Three companies—Reliable Engineering Associates, Inc., Automatic Typographics, Inc., and Plato Systems, Inc.—were selected for four contracts.

These awards, combined with other contracts for building maintenance, guard service, office supplies and maintenance, brings the total of minority subcontracts to $513,540, or 15 percent of the total value of the Informatics contract with NASA.

One step further

Informatics not only complied with Federal procurement regulations requiring recipients of

NASA INNOVATORS—*Discussing new contracts are from left Leon E. Johnson, industrial relations manager, Informatics Tisco, Inc.; Reginald Harvey, Plato Systems, Inc.; P. H. McBride, Jr., vice president, Informatics; Lawyer Martin, Automated Typographics, Inc.; and Rufus Williams, Reliable Engineering, Inc.*

awards of this size to submit a minority subcontracting plan, but went one step further by committing 15 percent of the work to minority firms in its proposal, NASA Minority Business Officer Eugen D. Rosen pointed out.

Rosen said this marks the first time a NASA bidder has committed a specific portion of the contract to minority firms. He added that Informatics, in its two one-year options on current contracts, has committed to subcontract 25 percent to minority firms the first year and 35 percent the second.

Dr. Dudley McConnell, director of NASA's Scientific and Technical Information Office, noted that while the agency's prime mission is in aerospace technology, NASA management is aware of its responsibility to accomplish that mission in the context of broader national objectives.

"President Nixon's policy and NASA's is to encourage minority participation in our national economy," said Dr. McConnell. "But, this is not a welfare program. The emphasis is on successful performance within fixed budgets, firm schedules and fairly rigid standards for evaluation. This is a tough league to play in."

Lawyer Martin, president of Automated Typographics, Inc., which won a $134,000 Informatics contract to abstract and index technical information, said the problems of small, young, minority businesses in getting contracts are the same as those of other new businesses. The established firms have the track records.

Martin, whose three-year-old Arlington, Va., firm has done work for several Government agencies, had high praise for the programs of the Office of Minority Business Enterprise and the Small Business Administration.

With the Informatics contracts, which Martin called his firm's first significant commercial award, Automated Typographics expects to top $1 million in volume during the current fiscal year.

Dr. Walter Bauer, president of Informatics, a California based company, said "certainly, if a business firm is to continue to work for the Government, it has to make commitments to foster the growth of minority business. Informatics really wanted to take a leadership role here."

Assistance provided

"We have been hard at work assisting our new subcontractors in areas where inexperience might create problems," Dr. Bauer continued. "There have been obstacles, and it hasn't been easy; but, it hasn't been that hard either."

OMBE, in cooperation with other Government agencies and the Federal Procurement Task Force on Minority Enterprise, initiated the amendment of procurement regulations, which became effective in October 1971 and requires contractors to make an effort to utilize minority subcontractors.

Reliable Engineering, a Philadelphia firm organized in 1969, was awarded two subcontracts from Informatics, one for $98,385 to catalog technical information, and another for $92,908 to reproduce and photograph microfilm.

Reginald Harvey, president of Plato Systems, Inc., of Silver Springs, Md., received a $92,000 Informatics award. Harvey's firm will perform computer data entry work for Informatics.

WRONG IDENTIFICATION — ***Because of a mechanical error the above pictures were incorrectly identified on page 15 of the April 16 issue of*** Commerce Today. ***Shown at left is Walter L. Sorg of the Office of Minority Business Enterprise. Robert Stuart, chairman, National Minority Purchasing Council, is shown at right.*** Commerce Today ***regrets the error.***

Investment In Small Minority Businesses Increasing, Expanding

Small Businss Administration investment in minority business development during 1972 exceeded a half billion dollars, the SBA has reported. This represents a sharp increase over the slightly more than $300 million in 1971.

Nationwide during 1972, SBA made 9,563 loans totaling $309.4 million to minority entrepreneurs. This compares with 8,387 loans for $231 million in 1971.

"We now are beginning to achieve inputs that will enable us to create the solid foundation we need to expand future minority business development," said Assistant Administrator Arthur McZier, who directs SBA's minority enterprise efforts.

McZier said "more important than the increase is that the average size of minority loans is increasing. This indicates recognition of the fact that both the capability and the need exists in the minority community for more sophisticated types of businesses."

During 1972, McZier revealed, SBA tripled the dollar value and doubled the number of contracts negotiated with minority firms. During the year SBA awarded 1,928 contracts for $207.4 million. In 1971, the agency awarded 1,012 contracts valued at $74 million.

"Recently, some of these contractors have emerged as competitive bidders for Government contracts," McZier said, pointing out that the purpose of the procurement program is to make contracts available to minority firms in order to strengthen their operations to the point where they are able to compete unaided in the commercial marketplace.

SBA also unveiled a new program last year to expand marketing opportunities for small minority-owned firms.

—Small Business Administration

Active Private Sector Seen Vital To Energy Solutions

Problems of energy supply—in a private enterprise economy—"must be solved by the active engagement of the private sector," Stephen Wakefield, the Interior Department's Assistant Secretary for Energy, has stated.

Wakefield, addressing a Conference Board meeting in Washington, on Essential Resources, said government is the scene-setter, the stage manager, the prompter for the show, but the cast of characters and the action must come from private industry.

Asserting that government's role should be limited to providing the kind of climate in which private enterprise will be encouraged to invest its resources in energy producing ventures, Wakefield said the sums required are enormous.

Further, the Interior Department official noted that there is a "built-in bias in the way we tend to look at resource supply and demand in the future which practically guarantees a negative conclusion.

"We never give ourselves credit for being smart enough to develop substitutes, to find new sources, to upgrade our technology to meet these future demands," Wakefield stated.

"The most significant thing we can do about energy problems of the future is to abandon the tendency to regard future capability as a linear extension of past performance, and to focus on the options we have for turning to our beneficial use the vast treasure-trove of energy resources which lies—quite literally—beneath our feet," he stated further.

The Conference Board sessions, dealing with Essential Resources and Understanding the Economic Realities of Essentiality of Resources, featured industry and government speakers in the field of energy and economics. Walter Hamilton, vice president of public affairs, The Conference Board, was chairman of the Essential Resources session and Lincoln Gordon, director, Project for Sustainable Growth, the Woodrow Wilson International Center for Scholars, headed the Economic Realities session.

The Commerce Department was represented at the sessions by James M. Owens, Director of the Materials Division, Bureau of Competitive Assessment and Business Policy, and A. J. Macone, Acting Deputy Director, Office of Import Programs, Bureau of Resources and Trade Assistance.

Wakefield, the luncheon speaker, narrowed the dimensions of the problem to two questions: whether resources of the order needed even exist in the United States, and whether they can be made available at the rate they will be required.

The first answer, Wakefield added, is an "unqualified yes."

Noting estimates that at least 450 billion barrels of oil and 2,100 trillion cubic feet of gas can be discovered and produced in the United States by technology now available, Wakefield added further that the picture for coal is even brighter.

Coal reserves

Coal can be discussed in terms of "reserves," the amount that has actually been discovered and measured and there is confidence it can be produced. There are approximately 210 billion tons of coal of all ranks lying in seams of 42 inches thickness or greater at depths of less than 1,000 feet. This is approximately 400 years' supply at 1970 consumption rate. Between 1,000 and 3,000 feet there are a trillion tons more, much of which can be reached and produced with improved technology, the Interior Department official explained.

Additionally, the shale deposits of Western Colorado, Wyoming, and Utah hold potential. There are some 600 billion barrels of oil equivalent, contained in rock assaying more than 25 gallons to the ton. There is an additional 1,400 million barrels in rock assaying more than 10 gallons to the ton. Approximately 80 percent of the known deposits are Federally owned.

This review does not take into account uranium and other nuclear fuels because their history of use for commercial energy production is so short and the estimates of their future contribution to the energy balance vary so widely.

"The barrier we are facing is one imposed not by physica or geology, but by economics," Wakefield asserted.

Supply has not kept up with demand because "we have not chosen to make the investments in energy resource exploration, extraction, production, conversion and utilization that were needed to assure adequate supplies of the particular forms we need."

Can these resources be made available at the rate they will be required? "Yes, if," Wakefield answers.

- If energy-enhancing ventures are made economically attractive.
- If a reliable long-range planning base exists.
- If environmental problems can be solved.
- If research and development is adequately funded, both by private and public sources.
- If luck prevails.

"We can be fairly sanguine about the outlook for the long-range—beyond year 2000, given 30 years or more to work on such objectives as solar energy, the fusion reaction, or capturing the energy of the tides and other exotic sources," Wakefield continued.

The mid-range, between 1895 and 2000, will be the beneficiary of the research and development

programs now under way—specifically oil and gas from coal and oil shale, techniques for removing sulfur oxides from the exhaust stream of high sulfur combustion, the breeder reactor, and the magnetohydrodynamic cycle.

But, it is the near term, from now until the mid-eighties, that poses the most critical problem. Of necessity, Wakefield concluded, "we must resort to off-the-shelf remedies to get us by this particular phase of our difficulties. By and large this means stepping up the tempo of the things we are already doing to supply our energy needs."

These problems, both long and short range, were addressed in President Nixon's energy message.

—Conference Board

Petroleum, Meat Prices Bring New Questions About Phase III

Phase III rules for sale of petroleum and the new ceilings on meat prices have brought a new barrage of questions from businessmen who are attempting to comply but fail to understand some of the technical aspects. The Cost of Living Council has attempted to clarify areas in a new series of questions and answers.

Q. Do the mandatory rules for sales of crude petroleum and petroleum products apply to sales at retail as well as to sales at the manufacturing and wholesale levels?

A. Yes.

Q. If an oil company request to raise prices on covered products above a 1.5 percent weighted annual average is not denied by the Cost of Living Council within 30 days, may the company then place the requested increase into effect? In other words does the Phase II "clock" still "tick" for oil companies operating under the mandatory rules?

A. No. There is no set time period in which the Council must act upon such a price increase request. As a matter of policy, however, the Council will make a determination as promptly as possible.

Q. At what point do the mandatory rules on oil apply to imported crude petroleum?

A. The first sale of an import in U.S. commerce is exempt. The mandatory rules for oil apply to subsequent sales.

The first sale into U.S. commerce occurs at the time an item is acquired by a U.S. purchaser.

In the case of oil, for example, purchases by a domestic firm from a foreign producer would constitute the first sale and the mandatory rules apply after that sale occurs. The place and time of passage of title to the U.S. firm—whether in the Middle East, mid-Atlantic or after entry into the U.S. customs zone—is not relevant to determination of when the first sale into U.S. commerce occurs.

Q. How should cost increases related to revaluation of the U.S. dollar be treated in calculation of a 1.5 percent weighted average annual price increase?

A. Increased costs due to currency revaluation should be treated the same as any other cost in determining price increases. Price increases resulting from increased costs because of the revaluation of the U.S. dollar are included in the computation of a 1.5 percent weighted annual average price increase in the same manner as other prices.

Q. In addition to meat ceiling price lists, what other information about meat must be available?

A. Each seller of meat and meat products — manufacturer, wholesaler and retailer—must prepare a list of ceiling prices on all meat items. At the time and place of a sale, the purchaser must be informed that the list is available and that he may compare the ceiling prices to the current prices of the product. Also the meat seller must have readily available for inspection by the Cost of Living Council or the Internal Revenue Service the calculations and data to support the ceiling price calculations.

Q. How are meat ceiling prices computed?

A. Ceilings are based on the prices charged in the 30 days that ended Tuesday, March 27.

To compute his ceiling price for each meat item, the meat manufacturer, wholesaler, or retailer may use the highest price at or above which he made 10 percent of his sales in the 30-day period. That price is the ceiling price.

Q. Does the temporary meat price ceiling cover the corner grocery store which has been exempt through most of the Economic Stabilization Program?

A. Yes, except the very smallest retailers with annual sales or revenue of less than $100,000.

Q. Are restaurants and other food services organizations covered by the meat price ceilings?

A. Not in their sales to consumers, but they are covered as purchasers.

Q. How does a meat manufacturer establish ceiling prices?

A. The regulations require each manufacturer of meat items to establish ceiling prices for each meat item sold to a particular class of customers on the basis of transactions which occurred during the 30-day period prior to March 28, 1973. In applying the meat regulations to specific situations the practice of the firm during the meat ceiling base period would generally be regarded as determinative of the firm's business practice.

A manufacturer whose customary business practice is to offer customers the option of purchasing meat items at a price which excludes freight as well as at a price including all freight and handling charges must continue this practice in complying with the ceiling regulations. Such a manufacturer would

establish two ceiling price lists.

The first list would state prices for all meat items at FOB plant net of customary discount allowance differentials. The other list would state delivery and accompanying handling charges calculated on the basis of rates in effect on March 27.

The manufacturer must continue to offer each purchaser the option of purchasing on the basis of either an FOB plant or a delivered price. The ceiling price for delivered items would be the sum of the FOB plant price and the delivery charges as they appear on the list maintained by the firm.

If a manufacturer has customarily offered meat items for sale on a delivered basis only, or on an FOB plant basis only, he first must establish ceiling prices for each meat item for each class of customer on the basis of invoices during the meat ceiling base period and must continue to use his established business practice in computing his ceiling prices.

Q. What price adjustment must be made by a manufacturer when his cost of raw materials decreases?

A. If a manufacturer of meat items incurs a lower cost for those raw materials covered by the margin regulations issued by the Cost of Living Council on March 22, 1973, he must reduce his price in accordance with those regulations. In other words, a packer must comply both with the ceiling rules and the margin rules and price on the basis of the rule which requires a lower price.

Q. How are ceiling prices determined for specialty items sold only during a particular season of the year, such as decorated Easter hams?

A. If a meat item was not sold at any time during the one-year period immediately preceding the date on which the item is now being offered for sale, the ceiling price for the product would be determined in accordance with the principles formerly set forth in the Price Commission's new product regulation. The price of such a "new product" would be determined by referring to the ceiling price of the most nearly similar product which was offered for sale during the 30-day period prior to March 28, 1973.

Q. Are cooperatives covered by the meat ceiling regulations?

A. Yes. Marketing and producing cooperatives must establish and maintain ceiling prices in the same manner as other firms.

Members of purchasing cooperatives who sell to ultimate consumers are subject to meat ceiling regulations in the same manner as other retailers. These organizations must establish ceiling prices on meat items and post these ceiling prices as prescribed in the meat regulations.

Cooperatives which engage in wholesale meat transactions are also covered by the meat ceiling regulations and must adhere to those requirements.

Q. What are the penalties for a retailer not posting ceiling prices, or a manufacturer, wholesaler or retailer selling or buying meat above ceiling prices?

A. Persons violating the meat ceiling regulations are subject to all the criminal and civil penalties provided in the Economic Stabilization Act.

Q. Why are you not imposing meat ceiling prices at the farm level?

A. Farm prices have never been controlled under any wage and price controls system in the U.S.—not during the World War II controls, nor during the Korean War, nor during the Phase I freeze or Phase II controls.

Supplies of raw agriculture products fluctuate widely on a daily basis. Since demand tends to expand, markets may decline as much as 50 percent in a single day, and double the following day.

One of the serious problems of imposing controls at the farm level is that it could cause disincentives to farmers, discouraging them from bringing their products to market.

There are numoreus buyers and sellers of live meat animals. Therefore, it would be extremely difficult to administer, monitor and enforce a live animal ceiling. The manpower commitment necessary to implement such a program would be overwhelming and could scarcely be justified in terms of benefits that might be accrued.

Q. How can you be sure there will be adequate supplies of meat in retail stores?

A. Farm prices are at favorable levels for livestock producers. Demand for meat continues strong. There is no reason to believe that demand will drop off significantly for any extended period. As long as demand is high, there is every incentive for the farmer to step up production and put more meat in the marketplace. It will be up to the farmer to assure that there are ample supplies of meat in the marketplace.

Q. What should a housewife do when she sees a retailer selling above ceiling prices?

A. Report the violation to the nearest Internal Revenue Service office. The IRS will also be conducting routine investigations to verify proper posting and ceiling prices and to determine possible violations.

Q. Couldn't a meat ceiling create the need for rationing at the retail level?

A. Since supply and demand are expected to be in balance, there should be no need for rationing at the ceiling prices.

Q. Food ceilings in the past have created black markets, how will you prevent black markets?

A. The consumer has in his or her power the ability to prevent black markets. Discipline on the part of the housewife, and confidence that the ceiling is a temporary action are the key to preventing black markets. Also, penalties for sellers who sell or purchaser who buy above ceiling prices are also within the powers of the Economic Stabilization Program.

Q. Will the meat price ceiling

cause a reduction in retail prices of meat?

A. Not necessarily. The action imposes ceiling prices, but does not dictate lower prices, or price rollbacks. A ceiling puts a stop to increasing prices, and allows prices to go down. Changes in consumer demand and increased supplies later this year should pull some retail prices down.

Inland Barge Designs Studied For Potential Pollution Reduction

A New Orleans engineering firm will perform life-cycle cost studies on various inland waterway tank barge designs for the Maritime Administration.

A $51,000 fixed-price contract was awarded by Maritime to Breit Engineering, Inc., to determine life-cycle costs of five alternative tank barge designs, including single-skin, double-walled, double-hull, single-skin with increased scantlings, and single-skin with selected local strengthening.

Life-cycle cost estimates will be developed for tank barges with capacities of 1,200, 2,500, and 3,700 short tons.

Additional estimates will be made of the costs of retrofitting existing single-skin tank barges to these higher design standards.

The Maritime Administration last July joined with the Coast Guard in a project to study the potential of barge designs to reduce water pollution from inland marine operations.

In addition to the Breit contract, which will require about three months to complete, this effort includes development of a comprehensive profile of existing U.S. tank barges, examination of Coast Guard records on barge spills to determine the effectiveness of alternative designs in minimizing cargo losses following casualties, and assessment of other economic factors that would bear on a choice between barge designs.

Personal Income Tops Trillion Dollar Mark In March, Data Show

Personal income rose $6.7 billion in March to a seasonally adjusted annual rate of $1,001.2 billion, the Bureau of Economic Analysis has reported.

Revised data show personal income increased $8.5 billion in February.

Wage and salary disbursements rose $5.7 billion, the same as in February. All major industry groups registered gains. Commodity-producing industries rose $2.5 billion; distributive industries, $1.2 billion; services, $0.9 billion; and government, $1.0 billion.

Factory payrolls rose $1.8 billion, compared with $2.5 billion in February. The March gain was due to higher employment and average hourly earnings. Most industries showed small to moderate payroll increases. The largest gains were in machinery, lumber, furniture, apparel, and chemicals.

Transfer payments rose $0.4 billion last month, following a $1.5 billion rise in February which included a $1.1 billion increase in social security benefits. Rental income in March declined $0.3 billion, reflecting the end of assistance provided to homeowners and businesses in the aftermath of Tropical Storm Agnes under the Disaster Relief Act of 1972. Increases in other types of nonwage income totaled $1.1 billion.

Total personal income in the first quarter of 1973 equaled $993.9 billion. This was $19.3 billion or 2 percent above the fourth quarter of 1972, and $86.9 billion or 9.6 percent above the first quarter of 1972.

—Bureau of Economic Analysis

Young Vets Have 'Serious Problem' In Job Hunt

James F. Oates, Jr., National Chairman of the Jobs for Veterans Committee, says that unemployment continues to remain a "serious problem" for young veterans.

While presenting President Nixon a copy of the Committee's annual report, Oates told the President that there was some improvement in the job picture for veterans above 24 in 1972 but those 20 to 24 are still experiencing great trouble finding jobs.

"A definite record has been established that the veteran has the edge in employment compared with his nonveteran contemporary," Oates said. "However, the Nation should not be satisfied until every veteran who wants either a job, or training for one, has the opportunity to meet these aspirations."

Oates pointed out that approximately 45,000 "young veterans" are scheduled to be separated each month during 1973.

The Committee's annual report shows that 240,000 Vietnam era veterans were unemployed in December 1972, compared with 335,000 a year earlier. It also points up the fact that the overall unemployment rate for Vietnam veterans is now lower than the rate of nonveterans for the same age group.

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints — the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

Noise Abatement, Emission Control Are Airlines' Goals

Noise abatement and reduction of pollutant emissions from jet aircraft are double barreled targets of the airline industry.

Airline industry officials, active in efforts of the National Industrial Pollution Council, report progress in both areas, emphasizing that the presence of smoke does not really indicate how much pollution is being produced.

"Neither is the blackness of the smoke a measure of total contaminants being emitted by an engine," the airline industry emphasizes. "Nevertheless the public has for years used the jet smoke plume as the measure of airline contribution to air pollution."

Actually, the jet engine is a very efficient powerplant and therefore produces relatively small amounts of contaminants. Reducing these small amounts even further is a slow and painstaking task.

In 1958, the jet age brought a major reduction in air pollution from air transportation. The long-range, four-engine piston-powered airliner of 1957 produced 112 pounds of emissions per engine during a typical airport operation. The first turbojets, despite dense black smoke from water injection on takeoff, produced only 55.2 pounds per engine per airport operation.

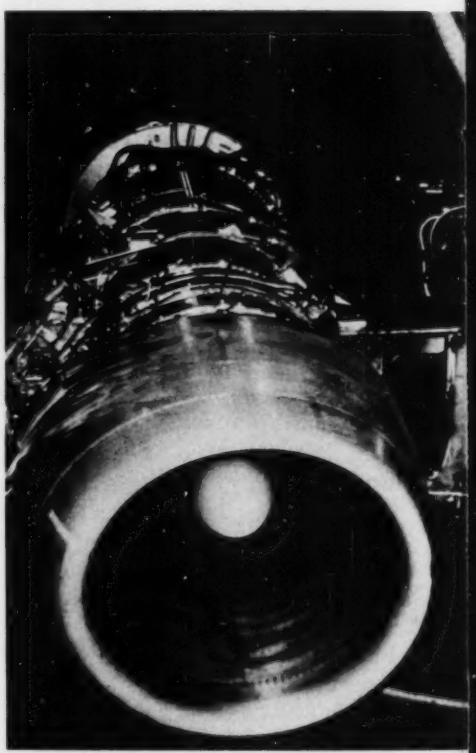
The move from pistons to jets cut emissions per engine — both visible and invisible—in half. Each new jet engine brought into the airline fleet since then has been more efficient, and has further reduced emissions per engine. Measured as a function of the service the airlines perform, the reduction of pollution is even more striking. Long range piston-powered transports produced nearly 15 pounds of emissions per passenger carried. The early jets cut this down to three and a half pounds per passenger and this downward trend has continued, with each new aircraft type.

In controlling noise, the airline industry is developing a major abatement program as part of its environmental control effort. The latest example of what can be done when technology is applied to making jet aircraft engines quieter is the new wide-body jets—the type that includes the L-1011 and the 747. According to the Air Transport Association these airplanes are quieter, make less noise and the noise they makes is less objectionable.

The airlines and the Federal Aviation Administration have been working to get the maximum possible noise reduction through changing the way these airplanes are flown.

Sound is energy that spreads through the air from a source. Because the sound weakens as it moves through the air, there are two ways to cut noise: increase the distance between the listener and noise source, or else cut down the energy at the source. Aircraft noise abatement procedures use both of these basic physical principles.

Over the past 12 months, the airlines have been seeking takeoff and landing procedures which will further reduce the impact on the



ENGINE—*The engine is one important area of development in the airlines' anti-pollution effort. Advent of the jet reduced pollution significantly. This completed engine is shown suspended in a test cell.*

FUEL NOZZLES—*The complex air transport industry is reducing pollution on a step-by-step basis. These workers are shown installing modified fuel nozzles.*

surrounding communities, without compromising the safety of operation. The airlines meeting in the ATA Flight Operations Committee analyzed many procedures, flying them in flight simulators to check out the safety and obtain performance data from which noise values could be developed by a computer.

"Noise reduction is not easy," the airline industry concluded in reports to NIPCC. "You have to be sure that in cutting the noise you don't also erode the safety of the flight or seriously reduce the efficiency of the nation's air transportation system.

"That's why noise reduction is coming slowly, one step at a time."

Business Development Group Gets Contract

Amerind Management and Data Systems, Inc., of Albuquerque, has received a $155,715 contract from Commerce's Office of Minority Business Enterprise to provide business assistance to minority group members.

Amerind will offer business support services to minorities, including business plan review, feasibility studies, financial packaging, and ongoing management and technical assistance.

The Amerind contract is part of OMBE's business development organization (BDO) program. BDOs are community-sponsored organizations offering business support services free of charge to minority group members. Other BDOs in New Mexico are the National Economic Development Association (NEDA), Albuquerque, and Corporation in Action for Minority Business Industrial Opportunity (CAMBIO), Espanola.

OMBE, established by President Nixon in 1969, coordinates Federal and private activities aimed at the development of minority businesses.

—Office of Minority Business Enterprise

LESS EMISSION—*This DC-9—both engines fixed—taking off at Washington National Airport, shows less emission. Airliners are reducing toxic pollution slowly but surely, the industry states, and safety isn't jeopardized.*

SMOKE NO MEASURE—*The airline industry says smoke is no measure of pollutants. This Boeing 737, one engine fixed, headed north for takeoff at Washington National Airport.*

Atomic Power Will Propel Vessels In Near Future

Atomic power could provide ship-owners with an attractive method of propelling their vessels in the near future, Howard F. Casey, Deputy Assistant Secretary of Commerce for Maritime Affairs, has asserted.

Casey told a meeting of the Southern Interstate Nuclear Board that the "United States' nuclear power industry must exert the maximum efforts possible to sell nuclear propulsion to the marine industry."

Tracing the 10-year history of the world's first nuclear-propelled ship, the *NS Savannah*, which was built by the Maritime Administration and the Atomic Energy Commission, Casey said nuclear propulsion is high on the list of priorities in MarAd's current research and development program.

The agency, he pointed out, has committed some $6 million over the last three years to the development of a modern, economical nuclear propulsion system.

The *Savannah* did not demonstrate the economic soundness of nuclear power, he said. It was not designed as a competitive commercial ship at a time when fossil fuels were comparatively cheap, putting nuclear power at a severe disadvantage.

"This situation has changed radically," said Casey, adding that Maritime Administration research answers affirmatively the question "Would nuclear power remain a scientific curiosity as far as merchant shipping is concerned, or would it offer an attractive alternative to conventional powering systems?

"Our analysis to date indicates three areas of shipping where nuclear power appears to be nearing competitiveness," he stated further. These are high speed containerships, very large bulk vessels and special vessels such as drilling ships and ice breakers.

"We have entered the era of high speed containerships — highly productive vessels that can carry over 1,000 containers at speeds of more than 30 knots," he explained. These vessels require power plants producing 100,000 or more shaft horsepower. Each ship will consume $50 to $100 million worth of fuel in its 25-year life.

"Under these circumstances, nuclearpower, despite its higher initial capital cost, appears to be quite competitive with conventional fossil-fueled plants," Casey explained further.

Also, the bulk shipping industry in the last 10 years has witnessed a phenomenal growth in vessel capacity, he continued.

"These mammoth ships require far larger power plants to attain the same speeds as their smaller predecessors," the Maritime Administration official continued further. "It is likely that nuclear propulsion will offer owners of these vessels the same economies it offers to the high-speed containership operators."

Noting that the Maritime Administration recently initiated a jointly funded project with one of the leading American drilling ship operators, Global Marine Corp., for a study of the feasibility of equipping Arctic drilling vessels with nuclear power plants, Casey said present offshore drilling is limited by weather and the high cost of flying in fuel in 50-gallon drums.

"Nuclear power has the potential to eliminate this inefficient means of supply and at the same time significantly lengthen the Arctic drilling season," Casey concluded.

He said the increased attention being given to the Arctic as one of the world's greatest storehouses of energy supplies may result in a requirement for high-powered icebreakers and ice transiting tankers or submarines in the next 10 years. Such ships would require up to 250,000 horsepower to operate successfully in Arctic ice. Here again the potential for nuclear power is real and may well be imminent.

Calendar For Businessmen

May 4 — Lowell, Mass. — Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. P. W. Cronin.

May 8 — Shreveport, La. — Edna Farley Marketing Symposium on Domestic and International Marketing. For information, write Edna Farley, Box 8422, Shreveport, La., 71108.

May 8-10 — Washington — Sales Success Conferences, sponsored by Interracial Council for Business Opportunities. Phone: 202-628-3877.

May 10-11 — Chicago — Third National Symposium on the state of the Black Economy, sponsored by the Chicago Economic Development Corporation.

May 10—Rome-Utica, N.Y.—Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. D. J. Mitchell.

May 16—Joliet, Ill.—Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. G. M. O'Brien.

May 19 — Pascagoula, Miss. — Launching of the Delta Norte, by Avondale Shipyards for Delta Steamship Lines, sponsored by Mrs. Frederick B. Dent.

May 23-24 — Cleveland — Business Opportunity Federal Procurement Conference, sponsored by Cleveland Growth Association.

SCIENCE & TECHNOLOGY REPORT

- **Commercial fishermen may benefit from tuna temperature research**
- **Oceanographic experiment to define currents; affects industry**
- **Industry leaders to play key role in ocean meeting**
- **Patents of special interest**

First Move Made Toward Gulf Superport

The first move has been made toward the construction of a deep-water superport to handle the huge ships which are now being built and projected for the future.

A team of marine specialists from Louisiana State University has recommended that the State of Louisiana begin work immediately on the nation's first superport, and that it be located in the Gulf of Mexico in water at least 100 feet deep between the Southwest Pass of the Mississippi Delta and Bayou LaFourche.

At the same time, the specialists cautioned that effective environmental safeguards would have to be established against accidental oil spillage and onshore development associated with the superport.

The LSU researchers are sponsored by the privately-supported Louisiana Superport Task Force and in part by a Sea Grant from Commerce's National Oceanic and Atmospheric Administration (NOAA).

The superport would be equipped to receive ships with a minimum deadweight tonnage (dwt) of 200,000 and with drafts of up to 90 feet or more. It would be built initially to import crude oil and gas to Louisiana refineries to help alleviate the growing shortage of these products. Thus it would have a definite link to the rising energy problem.

Authority created

The Louisiana State Legislature created in 1972 the Louisiana Deep Draft Harbor and Terminal Authority to deal specifically with superport problems, and thus has carried out the first step which the research team believed necessary.

The researchers stressed that construction of the port should proceed as soon as possible to obtain maximum economic advantages, that only one such terminal should be built in Louisiana waters, that it should be only an oil-receiving terminal at first, and that it should be so designed that other commodities could be handled at a later time.

The need for thorough environmental impact studies was stressed by the LSU scientists. They said the port-designers must meet problems head on by developing criteria for the evaluation of the project's potential effects on the environment with special attention to the preservation of the ecological balance of the area.

Studies conducted since the initial recommendations of the LSU team point to the possibility of oil spills and related onshore development in fragile marshes and estuaries as the most serious environmental impact problems created by the superport.

The LSU team made the following recommendations:

—Oil spill emergency procedures should be established, analogous to those used by civil defense agencies in hurricane protection. The important feature to incorporate in these procedures is immediate containment and rapid cleanup.

—Protective measures should be taken along all of the tidal passes of the port area. Such measures should be designed so as to prevent oil from entering the coastal estuaries but yet not disrupt these migratory areas by construction or during non-emergency times.

—Strict and meaningful navigational controls should be established for all vessels using the facility and for operation of the facility.

—Shore development associated with the superport should be carefully monitored and controlled so as to minimize the impact to the estuaries.

—Immediate research is needed in a number of areas, including the detailed hydrolography and meteorology of the area, toxicity studies of various crude oils, the location of the primary spawning areas of major fisheries species in the area, the formulation of better oil drift "models," and the effects of oil on marsh grass and microbes.

World-wide trend

The LSU researchers point out that there is a world-wide trend toward larger ocean-going vessels. In 1956, the world's largest tanker was less than 60,000 dwt. In 1970, the largest tanker was 326,000 dwt. At present, the world's largest tanker is Japan's *Nisseki Maru*, which is 373,000 dwt. Construction is under way on a 477,000 dwt tanker, and there are plans for a 1,000,000 dwt tanker in 1980.

Most data seems to indicate that, with few exceptions, the maximum size of ships constructed during this century will be about 500,000 dwt, requiring a draft of 100 to 120 feet.

According to the researchers, although the U.S. is the largest trading nation on earth, none of the world's 50 deep-draft ports in operation, under construction, or in the planning stages, is located in this country. Most ports in the U.S. have drafts ranging from 30 to 45 feet, limiting their use to vessels in the range of 50,000 to 80,000 dwt. Only the ports of Long Beach, Los Angeles, and Puget Sound can accommodate 100,000 dwt ships.

Construction plans

Paradoxically, construction plans are being made for U.S. superships which will be unable to enter U.S. ports. The *Manhattan*, once one of the largest ships in the world, was named after a borough whose harbors it cannot enter fully laden.

The LSU team reports that the Louisiana superport could be built between 1976 and 1978 in such a way as to place little stress on the area's natural environment. The team emphasized, however, that a good deal of preliminary investigation would have to be conducted before actual building began. These studies would include legal, engineering, economic, and environmental investigations.

The cost of the superport is estimated to range from $20 million to $60 million for a small platform-type structure capable of handling liquid or slurried cargo only, on up to $300 million and more for elaborate multipurpose platform facilities.

The development of superport facilities is of major concern to several other coastal States. With aid from the NOAA Sea Grant Program, research on superport development is now being conducted at Texas A and M University, the University of Delaware, Massachusetts Institute of Technology, and the State University of New York.

The Sea Grant Program is designed to encourage the development of America's marine resources in both the Atlantic and Pacific oceans, the Gulf of Mexico, and the Great Lakes. To accomplish this, NOAA awards matching grant funds to universities, laboratories, and other institutions for marine-related research, education, and advisory service projects. At least one-third of the funds for each sea grant must come from non-Federal sources. —*NOAA*

Commercial Fishermen May Benefit From Tuna Temperature Research

How does a change in water temperature affect the swimming and feeding habits of fish. Work in this regard on the tuna, and possible future findings on other food fish, have special value for commercial fishermen and scientific researchers who study fish behavior.

Scientists of the National Marine Fisheries Service (NMFS), an agency of Commerce's National Oceanic and Atmospheric Administration (NOAA), explain that if a determination can be made of the temperatures that specific fish prefer, and precise water temperatures can be fixed throughout wide oceanic regions, commercial fishermen may be aided by accurate predictions of potentially good fishing conditions.

NMFS researchers have found, through experiments with captive tunas, that a change in water temperature of even a fraction of a degree can radically alter the feeding behavior of this sensitive fish.

This discovery has been made at the Honolulu Laboratory of the

Southwest Fisheries Center of NMFS. The laboratory has pioneered in biological studies of living tuna since 1962, when its first saltwater tank complex was constructed at dockside. In the ensuing decade, valuable information has been gained on the behavior, swimming speed, food consumption, and the sensory capabilities of tunas. Such information serves the interests of commercial tuna fishermen seeking greater catches with maximum efficiency.

Researchers from NMFS and the University of Wisconsin mounted an experiment in which a free-swimming kawakawa, the Hawaiian version of a bonito tuna, was conditioned to respond to questions of scientists about its sensitivity to changes in water temperature. As the kawakawa's training proceeded, it became evident that the fish was able to detect and respond to temperature changes of as little as two-thirds of a degree.

At first the kawakawa was induced to swim through a barrel set in a fish tank to obtain a food reward. Once the fish became accustomed to the feeding method, the temperature of a stream of water trickled into the open barrel was changed from slightly warmer than the water in the main body of the tank to the same temperature in both barrel and tank, and food was offered only when the two temperatures were identical.

Through the barrel

The kawakawa quickly perceived what was happening, and swam through the barrel only when it knew a reward would be given, that is, when the water in the barrel was exactly the same temperature as that in the tank.

Related experiments with skipjack tuna equipped with electrocardiographic wiring revealed that the heart rate slowed in anticipation of slight temperature changes.

Other studies at the Honolulu Laboratory have shown that some tunas evidently react most favorably to water of about 75 degrees Fahrenheit, all other factors being equal, but that survival is possible in temperatures as low as 57 degrees Fahrenheit and as high as 93 degrees.

Feeding behavior

One study centered on the swimming and feeding behavior of tunas at various temperatures. In one tank, the temperature was held at 75 degrees Fahrenheit. In the second, the temperature was lowered gradually. In the third, the temperature was elevated gradually. No problems arose in the 75 degree tank, but the fish stopped feeding at 60 degrees in the second tank and at 90 degrees in the third, three degrees short of the lethal low and high temperatures.

The scientists found that some of the tunas tended to "loaf around" when their environment was suitable in terms of temperature, salinity, depth, and forage sources. When the water grew warmer or colder, they tended to speed up their activity and move around more erratically.

In an experiment planned for later this year, a doughnut-shaped tank with a circumference of about 50 feet will be temperature-regulated one degree upward or downward for each 500 yards a captive tuna swims in the same direction. The further the fish swims clockwise, the warmer the water will become. Swimming counter-clockwise will make the water cooler. To adjust the tank's thermostat to his liking, the tuna can simply change his swimming direction. The results of this experiment will indicate at what temperature tunas might be expected to concentrate in the ocean. *—NOAA*

Oceanographic Experiment To Define Currents; Affects Fishing Industry

The most elaborate oceanographic field experiment ever attempted in the western world is under way in the Atlantic Ocean to define ocean currents which have major effects on the fishing industry, coastal recreation and weather patterns over large areas. Finding ways to predict these effects is a major task of oceanographic research.

This intensive four-month study involves approximately 50 scientists from 15 oceanographic institutions in the U.S., Britain, Sweden and West Germany. It is sponsored primarily by the National Science Foundation International Decade of Ocean Exploration program and the Office of Naval Research.

The area under study is 40,000 square miles. Ocean currents are known to carry large amounts of heat, chemical substances, and planktonic organisms about the earth. Chief objective of the current study is to define the movements of medium-range ocean currents in a vast 200-mile area.

Commerce's National Oceanic and Atmospheric Administration is a major participant. The project is centered in an area about midway between Bermuda and the Bahamas. It is being conducted under the name Mid-Ocean Dynamics Experiment (MODE).

General knowledge

Studies made by oceanographers during the last century have provided a very general knowledge of the large-scale average circulation, including ocean currents such as the Gulf Stream. Technological advances during the last decade have made possible more detailed measurements which indicate a much larger variability of these currents than was previously known. It is now known, for example, that in many places the actual current can flow in a direction opposite to the expected average for weeks at a time and that large rotating masses of warm or cold water can drift

around in the ocean for as long as a year. Very little is known as yet, however, about the detailed nature or causes of these variations.

Various vessels involved in the study will launch free-floating and seabed devices and moored instrumentation as well as a program of standard measurements of the ocean's temperature and salt content.

Scientific council

The responsibility for planning and carrying out the program has been entrusted to a 21-member MODE Scientific Council composed of scientists from participating universities and oceanographic institutions.

The program continues to mid-July. Upon completion of the field work, it will be followed by a full year of analysis, comparison of experimental results with theoretical models and preparation of manuscripts for publication.

Preparations for the program have been under way for almost two years. The Scientific Committee on Oceanic Research of the International Council of Scientific Unions is considering following up this program with another intensive study of the oceanic environment possible in 1976 or 1977 with even wider international participation. *—NOAA*

Express Bus Project Attracts Commuters

An experimental bus project currently transporting Virginia suburbanites into the nation's capital via bus-only express lanes along Shirley Highway during rush hours could eventually affect commuter transportation patterns for other cities as well.

Since the project was initiated in 1969, 5,000 additional daily patrons have been attracted to the bus service, according to researchers conducting the study for Commerce's National Bureau of Standards. As a consequence, it is estimated that 3,000 fewer cars travel inbound daily on the busy highway.

This has also meant a corresponding reduction in peak period air pollution of about 1,700 tons of pollutants annually.

Sponsored jointly by the Urban Mass Transportation and Federal Highway Administrations of the Department of Transportation, the Shirley Highway Express-Bus-On-Freeway Demonstration Project seeks to demonstrate the effectiveness of three elements: exclusive bus lanes, new feature buses, and fringe parking facilities coordinated with the express bus service.

Performance monitored

To facilitate the transferability of bus-on-freeway technology to similar projects in other regions of the U.S., analysts in the National Bureau of Standards' Analysis Division monitor project performance and seek to determine which element increases the use of buses by commuters and by how much.

Shirley Highway is a major radial freeway serving a corridor population of more than 500,000 people. The highway emanates from Washington into northern Virginia and serves the Pentagon and Crystal City complexes. The busway is located in the median of the freeway, which is currently being converted from four to eight lanes. This is the first large scale demonstration of the bus-on-freeway technology.

Preliminary results reported by the Bureau of Standards have not yet been related to the costs of providing the new bus-on-freeway service. As the project proceeds toward its 1975 completion date, analysts of the Bureau will seek to determine who benefits, in what ways and by how much.

The Technical Analysis Division has been involved in other major transportation studies including the Northeast Corridor Transportation Study and developing a national rail network program for waybill processing. The Urban Systems Program Area within the division is concerned with applying system analysis techniques to problems of national significance.

COMMUTER SAVER—*Virginia residents who work in the nation's capital are finding an experimental bus project on Shirley Highway saving them nerve strain and time. More than 5,000 additional patrons have been attracted to the plan, the results of which could affect commuter travel in other parts of the country.*

Industry Leaders To Play Key Role In Ocean Meeting

Industry leaders with a stake in oceanography are to play a key role in the July 17-19 conference in Seattle, Wash., on "The Oceans and National Economic Development."

The firms and associations expected to attend are involved in a wide variety of ocean-related activities including petroleum, mining, fishing, shipping, recreation, and construction.

In announcing their participation, officials of Commerce's National Oceanic and Atmospheric Administration emphasize the importance of their role in helping the conference "assess how this nation can realize the full potential of the ocean to meet national economic needs in an environmentally sound manner" during the remainder of this century.

In addition to industry, the meeting will bring together leaders in Government, labor, the education community and environmental groups.

Included among industry representatives will be officials of some of the nation's largest petroleum corporations including Thomas Barrow, Senior Vice President, Exxon; Dayton Clewell, Senior Vice President, Mobil Oil Corp.; Dr. James S. Cross, Sun Oil Co.; and Ronald L. Geer, Shell Oil Co.

Shipping and fishing

Representing the shipping and fishing industries will be James Reynolds, President, American Institute of Merchant Shipping, and his labor counterpart, O. William Moody, Administrator, AFL-CIO Maritime Trades Dept.; Frank Holas, President, Booth Fish Co., Chicago; Harold Lokken, manager, Fishing Vessel Owners Assn., Seattle; and Richard Stroud, Executive Vice President, Sport Fishing Institute, Washington, D.C.

Others participating include M. A. Dubs, Director, Ocean Resources, Kennecott Copper Corp.; Raymond Kaufman, Vice President, Deepsea Ventures, Gloucester Point, Va.; and Howard F. Larson, Vice President, Outboard Marine Corp., Milwaukee, Wis.

Members of Congress expected to attend include Senators Warren G. Magnuson and Henry Jackson of Washington; Ernest F. Hollings of South Carolina; Ted Stevens of Alaska; and Mark O. Hatfield of Oregon; and Representatives Charles A. Mosher of Ohio and Joel Pritchard of Washington.

Current Fish Survey To Measure Depletion Caused By Overfishing

A spring survey of groundfish stocks of the North Atlantic Continental Shelf is under way in an effort to monitor changes in abundance and in distinguishing normal fluctuations in numbers from depletions caused by overfishing. Groundfish include haddock, cod, flounder, hake and pollock which spend much of their adult lives on or near the ocean floor.

Federal fisheries research is the responsibility of the National Marine Fisheries Service, a part of Commerce's National Oceanic and Atmospheric Administration.

The Continental Shelf waters are among the most fertile in the world but the results of previous studies indicate that the total biomass of groundfish has declined substantially in recent years, owing at least in part to heavy fishing. More than 16 nations fish in international waters over the Shelf.

Such surveys are of particular importance in that they provide estimates of the spawning success in previous years so that future catches can be based on realistic measures of the young fish that will be available one and two years hence. In addition the studies provide a variety of ecological data on various life stages of fish from eggs to adults, including spawning, growth and mortality rates, feeding habits as well as changes in distribution relative to environmental conditions. —*NOAA*

Storm Experiment To Use Skylab, Other Satellites

Experiments aimed at improving man's ability to comprehend, predict and modify typical weather over southern Florida and nearby ocean areas will make use of the manned Skylab to be launched by National Aeronautics and Space Administration (NASA) in May as well as other earth-orbiting environmental satellites.

Scientists from Commerce's National Oceanic and Atmospheric Administration hope to end the season with a significantly improved understanding of the cause and effect quantities involved in seeding cumulus clouds to increase cloud size and precipitation, the energy distribution and sea-air interactions associated with tropical storms and hurricanes, and new ways of observing these and other processes in the tropical atmosphere.

The project will run from June through November. The Universities of Miami and Virginia will cooperate with various NOAA facilities in the experiments.

Heavily instrumented research aircraft with sophisticated new radar systems and a dense network of surface wind and rain-measuring devices will be employed.

The tropical storm and hurricane research projects planned for 1973 are part of a continuing effort to improve scientific understanding of these great storms and to improve man's ability to predict their intensity, wave action and direction of travel. —*NOAA*

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Integrated reinforced plastic unit and method and apparatus for making the same. An integrated plastic unit and molding or thermoforming process and apparatus for producing the plastic unit from heated thermoplastic sheet material, such as polyethylene. The heated thermoplastic sheet material is placed over reinforcing forming members disposed on spacers which space the reinforcing forming members from the face of a mold, and the reinforcing members extend over substantially the entire face of the mold. The heated sheet material is then forced over the reinforcing forming members and over the face of the mold, such as by vacuum forming, to provide a generally flat surface extending in one plane and a bridging or web surface encapsulating the reinforcing forming members to provide a fused ribbed substructure of the thermoplastic sheet material reinforced by the forming members extending in a plane generally perpendicular to the flat surface. The reinforcing forming members may be metal members such as bars, wire strip or rods, arranged in a grid-like network. The mold may be flat or of bowed configuration. The product is particularly utilized as a pallet for transportation by forklift trucks in which event legs are provided by the unit. Patent 3,710,733 issued to William K. Story, Wilton Manors, Fla., and assigned to Plasteel Industries Inc., Fort Lauderdale, Fla.

Mobile air pollution reduction system and method. A mobile air pollution reduction method and system which may be incorporated in a truck body to be disengaged from a main chassis and left at an operating station. In place, the unit is connected through inlet and exhaust conduits to a chimney, stack or flue. The inlet conduit includes an interrupt mechanism to deflect waste gases into the unit. Gases injected to the unit are forced through a predetermined path where they are subject to a high pressure fluid stream which captures solid particles contained in the gases within the intercepting fluid. The cleansed gases and contaminated fluid are directed to a sump where the fluid is cleaned and recirculated through the system. The gases are passed through a final filter and exhausted to the atmosphere. Before being recirculated the fluid may be passed into a cooling system. Where incoming waste gases are only partially burned, a combustion chamber may be added to the system to ignite remaining unburned particles in the waste gases. Patent 3,719,028 issued to Ralph J. Brooks, 186 Clearview Ave., Langhorne, Pa.

Patents numbering 2,740,117 to 2,743,441 expired during April, 1973. Upon the expiration of the 17-year period covered by the patent, the invention passes into the public domain and may be made, used or sold by the public without payment of any royalty, or infringement of the inventor exclusive patent rights.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette.* Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Science Calendar

May 6-11—Hartford, Conn. — Annual meeting of the National Conference of States on Building Codes and Standards. Contact: NCSBCS Secretariat, Center for Building Technology, NBS, Washington, D.C., 20234.

May 8-9—Gaithersburg, Md.—National Bureau of Standards. Color & Appearance Symposium. Contact: T. W. Lashof, 921-2983.

May 21-23 — Cleveland, Ohio — Sheraton-Cleveland Hotel. 28th annual Technical Conference. Sponsored by American Society for Quality Control.

May 25-27—Washington, D. C.— Business and Trade Exposition, sponsored by Washington Economic Union and the Assoc. of Technical Assistance Agencies.

June 5-6-7—Montreal — Sheraton-Mt. Royal Hotel. "Pollution Control in the Marine Industries" conference. Sponsored by International Association for Pollution Control, Suite 303, 4733 Bethesda Ave., N.W., Washington, D.C., 20014.

June 8-10—Redwood Falls, Minn.— Minnesota Inventors Congress. Information: Minnesota Inventors Congress, P.O. Box 71, Redwood Falls, Minn., 56283.

June 11-15 — Milwaukee, Wis. — Marriott Motor Inn. Managing for Quality. Sponsored by the American Society for Quality Control.

June 19-20 — Gaithersburg, Md. — National Bureau of Standards. Symposium on the Simulation of Computer Systems. Sponsored by NBS and others.

August 14-16—Gaithersburg, Md. —National Bureau of Standards. Defects & Defect Clusters in B.C.C. Metals and their Alloys. Sponsored by American Institute of Metallurgical Engineers and NBS.

INTERNATIONAL COMMERCE REPORT

- Japanese offer Trade Center use to Americans
- Medical equipment trade mission in Spain, Portugal
- Economic reports from Netherlands, Philippines, Venezuela
- Calendar for world traders
- Twenty-one pages of licensing, sales opportunities

World Imports Up Sharply; U.S. Share Slips

Total imports by this country's leading trade partners expanded vigorously last year. Purchases by almost all of the nations listed in the accompanying table exceeded the levels of the previous year, in most instances by 10 percent or more when measured in U.S. dollars. The rate of increase was substantially more marked among the top ten traders, with France posting a rise of 25 percent. Two-thirds of the nations listed also increased their purchases from the United States.

When imports are measured in each country's national currency, however, increases generally become smaller since they are not affected by the changed relationship with the dollar following the realignment of currencies in December 1971. In national currency terms, the rise in overall French purchases was reduced to 15 percent, while those of Japan, the Netherlands, and Germany were less than half as large as when currencies are converted to U.S. dollars. The growth in imports of U.S. goods was similarly affected when measured in national currencies.

All of the trade and share comparisons which follow are based on statistics which have been converted from foreign currencies to U.S. dollars at exchange rates prevailing in each period. Reserves are treated on the same basis but only non-dollar elements are affected.

Rising demand for imports

Economic conditions generally improved throughout the world during 1972, although inflationary pressures continued to be widespread. Stronger business and consumer demand was reflected in greater total imports. Purchases from the United States, which declined in many countries during 1971, also rose significantly. With few exceptions, the U.S. share weakened in the leading markets, however, although the losses were generally smaller than in the previous year.

Among the ten largest trading nations, only Switzerland reported an improvement in the share of imports provided by the United States. Purchases of U.S. goods climbed nearly one-fifth following a decrease in the previous year. Contributing to the gain were higher imports of U.S. office machines, electric machinery, wheat, feed, and tobacco.

France and Canada also increased their purchases in the United States—by one-fifth—but this country's share declined nevertheless. Larger arrivals of air-

craft, mechanical handling equipment, and office machines were responsible for the sharp gain in French imports of U.S. goods. In Canada, a strong upswing in automotive imports, both complete vehicles and parts for assembly, provided the main impetus for the expansion from this country; arrivals of office machines, telecommunications equipment, and non-road tractors rose as well.

Despite a considerable drop in purchases of coal and various types of machinery, Japanese imports from the United States increased by 18 percent. The U.S. share, however, weakened as imports from other suppliers rose even more vigorously. Contributing especially to the gain from this country were higher arrivals of raw materials, such as lumber and hides, and of sporting equipment and games.

In Italy and the United Kingdom, reduced imports of aircraft held the overall advance in purchases from the United States to about one-tenth, measured in dollar terms. Increased arrivals of U.S. corn, lumber, machinery for extracting and working minerals, and office machines helped boost the level of Italian imports. Larger purchases of aircraft turbines, soybeans, tobacco, and butter contributed to the rising value of U.K. purchases here.

Importers in both Germany and the Netherlands increased their purchases from other suppliers considerably, but cut back those from this country. A sharp reduction in arrivals of U.S. aircraft and corn into Holland more than offset advances in organic chemicals and oilseeds. German imports of U.S. defense items dropped by more than 50 percent in 1972, while those of other goods rose slightly.

Among several of the smaller developed countries, arrivals of U.S. aircraft played a significant role in the gains or losses in the U.S. share. In Spain, the improvement in the U.S. position stemmed from stepped-up imports of more than one-third, concentrated especially in aircraft, though corn and soybeans also contributed. Conversely, the reduction of aircraft purchases by Austria and Ireland was largely responsible for the deterioration of the U.S. position.

Elsewhere, Greece boosted its imports from the United States more rapidly than from other suppliers, resulting in a substantial rise in the U.S. share. Iran's foreign purchases rose by more than one-third, while those from this country grew at twice that rate, boosted by a larger inflow of power-generating machinery, steel pipe, and wheat. Singapore's imports from the United States increased by about one-third, resulting in a rise in the U.S. share. The gain reflected larger arrivals of electronic tubes, transistors, and

Imports And Currency Changes

The appreciation of major currencies relative to the U.S. dollar under the Smithsonian Agreement raised the dollar value of 1972 imports into most large trading countries more than the value measured in national currencies or, in certain cases, resulted in a smaller decline. This table compares growth rates of selected countries' imports on the two bases of valuation.

Import Changes, 1971-72

Country	From World		From United States	
	Based on U.S. dollars	Based on national currencies	Based on U.S. dollars	Based on national currencies
Germany	+17%	+ 7%	− 6%	−13%
U.K.	+17	+14	+11	+ 8
France	+25	+15	+20	+10
Japan	+19	+ 5	+18	+ 3
Canada	+22	+20	+20	+18
Italy	+21	+14	+11	+ 4
Netherlands	+13	+ 4	− 4	−12
Belgium-Lux.[1]	+22	+10	− 5	−15

[1] 12 months ending Nov. 1972 compared with preceding 12 months.

World Market

The 50 markets shown below accounted for 91 percent of 1971 imports

Values in millions of dollars — Published

Country	1971 Imports			1972 Imports January through latest month				Import change in latest available 12-month period[2]		Reserves at end of fourth quarter	
	From world	From U.S.	U.S. share %	Latest month	From world	From U.S.	U.S. share %	From world %	From U.S. %	1971	1972
Germany, Fed. Rep.	34,341	3,544	10.3	Dec.	40,018	3,345	8.4	+ 17	− 6	18,392	23,427
United Kingdom	23,973	2,648	11.0	Dec.	28,041	2,949	10.5	+ 17	+ 11	6,583	5,645
France	21,238	1,800	8.5	Dec.	26,573	2,156	8.1	+ 25	+ 20	8,253	10,015
Japan	19,721	4,985	25.3	Dec.	23,494	5,862	25.0	+ 19	+ 18	15,360	18,365
Canada	16,822	11,804	70.2	Dec.	20,467	14,147	69.1	+ 22	+ 20	5,701	6,050
Italy	15,968	1,435	9.0	Dec.	19,282	1,592	8.3	+ 21	+ 11	6,787	6,079
Netherlands	15,522	1,463	9.4	Dec.	17,464	1,408	8.1	+ 13	− 4	3,796	4,785
Belgium-Luxembourg	12,866	821	6.4	Nov.	14,169	772	5.4	+ 22	− 5	3,473	3,870
Switzerland	7,217	514	7.1	Dec.	8,465	611	7.2	+ 17	+ 19	6,966	7,488
Sweden	7,083	566	8.0	Dec.	8,063	583	7.2	+ 14	+ 3	1,110	1,575
Australia	5,256	1,161	22.1	Sept.	3,777	825	21.9	− 2	− 9	3,316	6,141
Spain	4,965	772	15.5	Dec.	6,631	1,048	15.8	+ 34	+ 36	3,225	5,014
Denmark	4,589	385	8.4	Dec.	4,936	346	7.0	+ 8	− 10	722	797
South Africa, Rep.	4,432	723	16.3	Nov.	3,713	618	16.6	− 9	− 5	711	1,290
Austria	4,192	156	3.7	Dec.	5,209	168	3.2	+ 24	+ 8	2,343	2,719
Norway	4,083	244	6.0	Dec.	4,368	267	6.1	+ 7	+ 9	1,154	1,325
Brazil	3,701	1,065	28.8	Sept.	3,427	(1)	(1)	[2]+ 30	[2]+ 16	1,746	[3]3,917
Hong Kong	3,387	423	12.5	Dec.	3,892	464	11.9	+ 15	+ 10	(1)	(1)
Yugoslavia	3,316	201	6.1	Nov.	2,897	181	6.3	− 5	− 9	198	730
Singapore	2,828	360	12.7	Dec.	3,383	475	14.0	+ 20	+ 32	593	[4]676
Finland	2,794	125	4.5	Dec.	3,198	140	4.4	+ 14	+ 12	715	758
India	2,409	562	23.3	Aug.	1,555	242	15.6	+ 1	− 32	1,206	[3]1,169
Mexico	2,407	1,479	61.4	Sept.	2,134	1,256	58.9	+ 13	+ 8	952	[5]1,046
Korea, Rep.	2,394	678	28.3	Nov.	2,261	586	25.9	+ 1	− 10	571	740
Venezuela	2,151	952	44.3	June	1,185	543	45.8	+ 12	+ 5	1,522	1,732

Note: The countries shown above include the 50 major importers of U.S. merchandise in 1971 for which current data are available. In order to present comparable statistics for all countries, import data have been adjusted from an f.o.b. to a c.i.f. valuation for Australia, Canada, Panama, Philippines, Republic of South Africa, and Venezuela. Reserves include official holdings of gold and foreign exchange, the gold tranche position, and Special Drawing Rights in the International Monetary Fund.

Report

Bureau of International Commerce

into all free-world markets and 93 percent of imports from the U.S.

quarterly

Country	1971 Imports			1972 Imports January through latest month				Import change in latest available 12-month period*		Reserves at end of fourth quarter	
	From world	From U.S.	U.S. share %	Latest month	From world	From U.S.	U.S. share %	From world %	From U.S. %	1971	1972
Greece	2,098	139	6.6	Oct.	1,900	125	6.6	+ 18	+ 55	525	1,032
Iran	1,871	242	13.0	Sept.	1,828	331	18.1	+ 34	+ 66	612	960
Argentina	1,869	414	22.2	July	1,071	210	19.6	— 2	— 20	290	465
Taiwan	1,844	408	22.1	Oct.	2,027	461	22.8	+ 40	+ 33	526	738
Ireland	1,834	158	8.6	Dec.	2,107	161	7.6	+ 15	+ 2	995	1,126
Portugal	1,823	126	6.9	Dec.	2,186	194	8.9	+ 20	+ 55	1,945	2,312
Israel	1,808	430	23.8	Dec.	1,921	368	19.2	+ 6	— 14	737	1,222
Nigeria	1,510	212	14.0	June	794	86	10.8	+ 18	— 7	432	385
New Zealand	1,346	137	10.2	Dec.	1,531	(1)	(1)	[2]+ 8	[2]— 17	315	578
Philippines	1,316	328	24.9	Dec.	1,380	352	25.5	+ 5	+ 7	382	551
Thailand	1,287	183	14.2	July	815	125	15.4	+ 10	+ (6)	877	1,052
Algeria	1,221	101	8.3	June	733	48	6.6	+ 10	+ 4	506	486
Indonesia	1,174	177	15.1	June	604	88	14.6	+ 15	+ 1	(1)	(1)
Malaysia[7]	1,112	68	6.1	May	522	33	6.4	+ 6	— 22	899	995
Turkey	1,088	129	11.8	Sept.	1,079	97	9.0	+ 22	— 14	761	1,401
Pakistan[8]	926	212	22.9	Dec.	667	143	21.5	— 28	— 32	181	273
Colombia	921	374	40.7	Mar.	205	81	39.4	[2]+ 9	[2]— 4	203	325
Egypt	920	51	5.6	May	430	33	7.7	+ 1	— 1	161	149
Peru	753	220	29.3	Oct.	664	200	30.2	+ 12	+ 8	240	273
Morocco	698	99	14.2	Nov.	697	56	8.1	+ 7	— 24	174	237
Trinidad & Tobago	657	115	17.5	Sept.	575	107	18.6	+ 21	+ 15	69	58
Panama	389	137	35.2	June	202	72	35.8	+ 9	+ 1	476	[9]665
Costa Rica	350	114	32.7	Oct.	299	96	32.2	+ 7	+ (6)	28	39
Ecuador	304	104	34.1	June	137	40	29.5	+ 12	+ 3	65	143
Guatemala	297	97	32.8	June	149	52	34.8	+ 6	+ 3	94	135

* Compared with preceding 12-month period.
[1] Not available. [2] Import change from 1970 to 1971. [3] End of November. [4] End of April. [5] End of October. [6] Less than 0.5 percent. [7] Import data are for West Malaysia only. [8] Prior to December 1971 data include the former East Pakistan (Bangladesh). [9] End of June.
Source: Official trade statistics of listed countries.
International Monetary Fund, *International Financial Statistics.*

semiconductors, mostly for assembly, and of construction and mining equipment.

This country's standing in the Mexican import market continued to decline in 1972 despite the fact that purchases of U.S. goods were moderately higher. The increase in arrivals of power-generating machinery and television parts for incorporation into complete sets was substantial. At the same time, imports of passenger vehicles in assembled and unassembled form, and of construction and mining equipment, rose. Taiwan's imports of U.S. goods advanced by one-third in value last year because of greater arrivals of aircraft, machinery, and radio and TV parts for assembly. Nevertheless, arrivals from other countries, especially Japan, climbed even faster, causing a drop in the U.S. share of that import market.

Reserves top $130 billion

Official reserves of this country's major trading partners rose to more than $130 billion by the end of 1972, a gain of 23 percent over the year. The advance was, nonetheless, smaller than in 1971 and less heavily concentrated. The developing countries shared more fully in the increase than they had in 1971. Seven countries recorded increases of $1 billion or more.

Largely on the strength of a record trade surplus, Germany increased its official holdings by $5 billion, even though it incurred a modest decline in the fourth quarter of 1972. That drain particularly reflected a shift of funds seeking higher interest rates elsewhere.

Despite a large Japanese trade balance, a sharp rise in outflows of long-term capital helped that country hold the growth in reserves to $3 billion. Further, the rate of accumulation abated toward the end of the year, principally because the Bank of Japan extended credits to commercial banks to finance imports with currencies which otherwise would have gone into official holdings. Australia boosted reserves nearly as much as Japan. A notable improvement in the current account and, especially, a heavy inflow of capital accounted for this marked growth. Workers' remitances, tourism proceeds, and foreign investment capital caused Spanish reserves to increase by more than 50 percent.

France, the Netherlands, and Brazil were the other countries accruing over $1 billion in new holdings during the year. Brazil added more than $2 billion to official holdings. Most of the increase reflected the inflow of foreign capital drawn by a surging economy.

Both the United Kingdom and Italy suffered sizable declines in official holdings. The pound remained relatively steady after it was permitted to float in June following a speculative attack on sterling. A dock strike in August disrupted British trade, especially exports, increasing the deficit. Repayments of U.S. and Canadian loans toward the end of the year further reduced reserves. Even though the current account was in surplus, the outflow of speculative capital from Italy continued through most of 1972. It abated toward the end of the year and, in January 1973, Italy introduced a two-tier exchange market for greater control of capital movements.

Japanese Offer Display Facilities To U.S. Suppliers

Facilities of the display hall in the Japan Export General Merchandise Center in Tokyo are being offered to U.S. manufacturers and suppliers for promotion of U.S. product sales in Japan.

The Japanese Government announced at the same time that it was deleting the term "export" from the name of the facility in line with its new orientation toward promotion of imports.

The Ministry of International Trade and Industry of Japan has requested the U.S. Embassy to announce the availability of the facility to U.S. businessmen, encourage U.S. firms to use it, and identify possible U.S. product lines to be promoted.

The display hall, located adjacent to the Harumi Fair Grounds, features a catalog corner and sample show cases. It is also used for periodic shows, which recently have featured hobby goods and toys, leather goods, apparel, housewares, bamboo, and stationery. Product themes scheduled over the next year include gifts, plastic ware, steel furniture, folk crafts and an import show.

Center officials said nominal charges would be made for services which include rentals of glass showcases, space, and booths at sample fairs and import shows, and manning the booths. The Center's staff will provide invitations to the trade (including importers, wholesalers, department stores, and other retailers) and will display products and refer interested buyers to the U.S. suppliers.

Interested U.S. business firms are asked to contact Tatsuo A. Miyakawa, Country Marketing Manager, U.S. Department of Commerce, Room 6318, Washington, D.C. 20230; telephone 202-967-2963.

U.S. BUSINESSMEN IN PORTUGAL—*During its recent selling tour in Europe, the Commerce Department's medical and surgical equipment mission met for a program with the Medical Equipment Importers Association in Lisbon.*

Medical Equipment Market Pulse In Spain, Portugal Signals Sales

Short-range success, long-range opportunity is what members of a recent trade mission found as they sought markets for their medical and surgical equipment in Portugal and Spain.

Returning late last month from a ten-day selling tour in the two countries, one of the U.S. businessmen enthused: "This trade mission is a revelation. My company did more business than we ever thought possible in this market." And another added: "We're greatly impressed with exposure of product by this mission."

Their short-range success: More than 200 leads obtained, and sales in the next two years estimated at close to $18 million, as summarized by Mission Director Howard G. Sloane, who has been active in the affairs of the New York Regional Export Expansion Council.

The long-range opportunity is reflected substantially in the hospital expansion plans of the two countries, and in certain market characteristics.

Portugal is proposing to build two large new hospitals in the immediate future—one in Lisbon and a second in Coimbra—totaling an additional 2,200 beds. Also, existing facilities are to be remodeled. Both of these programs will require sizable purchases of high-technology medical equipment.

Spain, in its ten-year plan, is to double its existing 150,000-bed capacity. This building program is to be largely under the supervision and control of the Spanish Social Security System, a branch of Government.

"The opportunities, therefore, are great," says Mission Director Sloane. "Whether we are able to take advantage of them will depend to a large extent on how we approach the market. To quote the outgoing President of the American Chamber of Commerce in Spain, with whom we spoke at some length, "Businessmen have to come here and sell. They should stop treating exports as though they were something special and just come and sell."

The mission members did "come and sell." More than 200 individual appointments were arranged by Commerce Department officials and U.S. Commercial Officers in three

cities—Lisbon, Madrid, and Barcelona. The businessmen visited major hospitals and manufacturing facilities in both countries.

In Portugal, Sloane met with officers of the Medical Equipment Importers Association, and with representatives of the Ministry of Public Works and the engineering staff responsible for remodeling existing hospitals. In Spain, the group met with officials of the Spanish Chamber of Commerce and Industry, the newly elected president of the American Chamber of Commerce, and the Directors of the Spanish Social Security System.

"From these various meetings we gained a new insight into market opportunities," said Sloane, and he summarized their most important overall observations:

► Business in Spain and Portugal is carried on largely through agents. Therefore, the prime requisite to market penetration is the appointment of an agent who will actively represent your products. Mission participants are now negotiating more than 50 such agreements.

► American products are highly regarded in both countries. High-technology items, such as many of those represented by the mission, seem to offer the best opportunity for export expansion, as they do not conflict with domestically produced products; some 85 percent of advanced medical equipment must be imported.

Among the products the mission members reported as sparking the most immediate interest were hemodialysis delivery systems, medical electronic systems, fiber optics recorders, advanced "turnkey" equipment, air cystometers, medical nuclear instruments, mini-computer information system for medical records, resuscitation equipment, portable oxygen generators, inhalation therapy ventilators, intensive care monitors, pulmonary function apparatus, diagnostic instruments.

► For high-technology products, price does not seem to be the prime obstacle. Rather the interest is in high quality, reasonable delivery periods, adequate service facilities with parts supply available, and sometimes financing assistance.

► Tariff barriers are not insurmountable. Present Portuguese and Spanish trade agreements with the EEC will perhaps increase rather than decrease the opportunity for American exports if EEC rates are applied rather than the prevailing domestic tariff charges.

BUSINESS INTERVIEW — *Mission member Bernice Hinckley of Drake-Willock describes U.S. medical equipment to prospective Spanish customers.*

► Particularly in Portugal there is an inclination toward "turnkey" operations. This means that future trade missions must be prepared to provide a broad spectrum of products and services.

"Finally," said Sloane, "I should like to quote a senior medical officer in Portugal who said to me, 'Other nations are here visiting us while you come only infrequently.' The market is here. American goods are highly regarded. We are even in most instances competitive in high technology. How successful we are will depend on whether we are willing to aggressively pursue the opportunities available."

Companies on the mission, and their representatives, were: Drake-Willock, Portland, Ore., Bernice Hinckley; Honeywell, Inc., Denver, R. S. Snyder; Medical International Co., Newark, N.J., R. S. Mandell; Modern Controls, Minneapolis, Charles Blethen; Pelam, Inc., Hinsdale, Ill., J. B. McCormick, M.D.; Technical Associates, Canoga Park, Cal., Allen M. Goldstein; Inter-Technical Group, Irvington, N.Y., Peter Auerbacher; United Exporters, San Francisco, N. C. Berkowitz; and Warren E. Collins, Inc., Braintree, Me., Barton R. Dwight. Mission Director Sloane is managing director of the New York Coliseum.

LEADER GREETS LEADER—*In Madrid, Mission Director Howard G. Sloane (right) meets Hugh Wynne (left), newly elected president of the American Chamber of Commerce in Spain, as John F. Troy of the U.S. Embassy looks on.*

WISCONSIN AWARD—*Harvey Raasch, Wisconsin Regional Export Expansion Council chairman (2nd left), with officials of Gettys Mfg., Racine: (from left) Nancy Johnson, and Mr. and Mrs. Roger Gettys Hill.*

CONNECTICUT AWARD—*Joseph F. Fahey (left), of State National Bank of Connecticut, shows award to Bridgeport Mayor Nicholas A. Panuzio. Richard C. Kilbourn, director, Commerce's Hartford District Office (right), presented it.*

AT CHICAGO WORLD TRADE CONFERENCE—*John Byington (left) of the Bureau of International Commerce presented awards to Robert C. Stuart, AAR Corp.; L. H. Deubler, Deublin Co.; Elmer M. Walsh, Jr., Edax Int'l. At right is Gerald M. Marks, director, Commerce's Chicago District Office.*

'E' For Exemplary

This display of recent Presidential "E" Award winners illustrates the variety of U.S. enterprises now making an export impact.

Gettys, of Racine, Wis., sells automatic tracing controls for machine tools. From the Chicago area, Deublin makes rotary unions for fluid systems; Edax, analytical instruments; AAR Corp. (an "E Star" or repeat winner), aircraft instruments. Edwards Laboratories makes hospital instruments and equipment; Harrelson, of Asheboro, N.C., rubber for retreading. The Bridgeport bank not only finances but promotes exports.

CALIFORNIA AWARD—*Officials of Edwards Laboratories, Santa Ana (from left), Will R. Pierie, Phillip E. Chappell, and George W. Smyth, Jr., accept award from Lee Collins of Southern California Regional Export Expansion Council.*

NORTH CAROLINA AWARD—*(From left) Albert A. Harrelson, Jr., President, and Anthony Winkler-Prins, Export Manager, Harrelson Rubber Co.; H. Phillip Hubbard, Director, Commerce's Office of Field Operations, who made presentation.*

STEAMING PROBLEMS AWAY—*Japanese representative of W. M. Cissell Manufacturing Co. demonstrates the firm's steam/air finishing equipment at showing of U.S. commercial laundry and dry cleaning equipment at U.S. Trade Center in Tokyo.*

Tokyo Trade Center Spurs Sales Of U.S. Laundry, Dry Cleaning Items

The recent U.S. Exhibition of Commercial Laundry and Drycleaning Equipment at the U.S. Trade Center in Tokyo signaled the resumption of active American market promotion activities to expand sales of this equipment in Japan.

Scheduled to coincide partially with the All-Japan Cleaning Equipment and Supplies Trades Council Show at Tokyo's Harumi Fairgrounds, the American effort attracted more than 2,600 visitors to the six-day U.S. Trade Center event. The Council cooperated with the U.S. Trade Center in developing joint pre-show public relations activities which benefited both exhibitions.

One exhibitor, in a special report to the U.S. laundry and drycleaning industry, noted that the developing Japanese preference for double knits and permanent press clothing by both men and women would have a considerable impact on the laundry and drycleaning industry in Japan in the next year and a half.

Off-the-floor sales at the February show were $330,000, and the show's 27 exhibitors reported anticipated one-year sales at $25 million.

Cooperating with the Department of Commerce on domestic (U.S.) procurement activities was the Laundry and Drycleaning Allied Trades Assn. (LACATA) of Upper Montclair, N.J.

U.S. Exhibitors Invited To Shows On 3 Continents

U.S. firms are welcome to exhibit at the following overseas trade events:

International Exhibition of Knitwear Machinery: Sept. 11-15. Write: Schweizer Mustermesse, Postfach CH 4021, Basel. Telephone: 601-32-38-50; Telex: 62685.

Industrial and Engineering Exposition, Cordoba, Argentina: July 6-29. Write: INTERCAMBIO, Esmeralda 319, 1er Piso, Buenos Aires. Telephone: 46-6953.

Eighth Tokyo International Metalworking Machines Exhibit: Oct. 19-24. Write: Industrial Daily News, 1-8-10 Kudan Kita, Chiyoda-ku, Tokyo.

Sales Figures Make Good Reading After Sydney Center Show

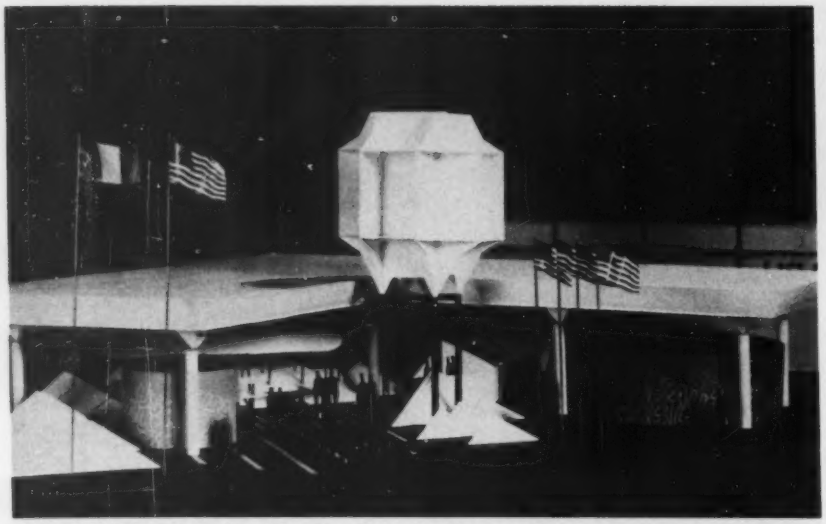
Statistics can be cold and wearisome things but Jim Goodsell, Director of the United States Trade Center in Sydney, was all smiles after reading the figures produced by the March 5-9 Industrial Process Controls Exhibition.

Every person who attended the exhibition spent an average of $602.75 and committed themselves —or rather their companies—to spend another $7,872 during the next twelve months. All in all, the exhibition accounted for well over $10 million in sales.

But the Australian attendees were not spendthrifts. The equipment on display was just the sort that Australia urgently needs to satisfy the booming secondary industry segment — both domestic and export — plus the specialized requirements of the mining, oil and natural gas industries which are growing at a phenomenal rate. The 66 U.S. companies were showing a range of 280 individual products.

Leeds & Northrup set a style of lightness in demonstrating equipment usually of interest to the highly technical. And the theme paid off—not only did the equipment attract the highly specialized but also the managing directors who control the eventual budget.

Another unusual exhibit featured a computer displayed by Varian Associates, which was programmed to play blackjack, golf, bridge and various other games.



KITTYHAWK TO SKYLAB—*The U.S. Pavilion at the Paris Air Show May 24-June 3 will salute the 70th anniversary of the Wright brothers' pioneer flight and the launching of the Skylab space-exploration project. It will have three separate public and buyers' areas to display aviation products by 66 U.S. producers and aerospace items from 11 other companies. After the previous Commerce Department exhibition, at the 1971 event, 78 firms reported $56.6 million in show-related sales.*

U.S. Computer, Fluid Power Exhibits Needed In Europe

Computers and business equipment: Spain. The U.S. will officially sponsor a pavilion at the Nov. 9-18 International Office Equipment Fair in Madrid's Crystal Palace. The Exhibition will be aimed to the maximum extent possible at introducing new-to-market firms and finding Spanish agents and distributors for them. Spanish customers are generally reluctant to purchase from foreign firms that do not have representatives in Spain, and the more complex the equipment offered, the more pronounced this bias usually becomes.

Most of the U.S. manufacturers of large computers, such as IBM and Honeywell, are already well established in Spain, and in fact U.S. firms now control 80 percent or more of the market for large computers. This does not hold true, however, for mini-computers, as foreign firms hold the major share of the market. Moreover, market research indicates that the fastest market growth will occur in mini-computers.

Micrographics equipment, which market research calls a very promising field, and sophisticated business equipment and systems will also be emphasized.

In recent years Spain has achieved one of the highest rates of economic growth of any of the countries of Western Europe, with real annual increases in GNP averaging 6.4 percent, and this rapid growth is expected to continue. Overall imports are expected to grow by about 15 percent annually.

The American Embassy at Madrid has ranked computers and business equipment and systems second among those product categories which it believes to have the highest potential for incremental export sales and which would bring maximum results if promoted in fiscal 1974, and cites estimates by the Spanish Ministry of Industry that the business and data processing equipment market will grow by 25 percent per year.

For details, call Ann Corro at 202-967-3958, or write her at BIC-228, U.S. Department of Commerce, Washington, D.C. 20230.

Fluid Power Equipment and Components: France. The U.S. Department of Commerce is offering American manufacturers and suppliers of fluid power equipment and components an exceptional opportunity to sell their products and establish representation in France by displaying at a Nov. 19-21 Paris Trade Center JEEP show.

France now has the fastest growing economy in Western Europe. Pervasive signs of economic expansion can be seen everywhere. Its highways are clogged with vehicles. New factories are being built and old ones modernized. Rising labor costs are causing streamlined manufacturing processes and automated operations.

By the end of 1973 French purchases of hydraulic and pneumatic equipment and parts is expected to reach about $300 million. Imports have been supplying about 25 to 30 percent of the market, with about 35 percent of the hydraulic market being imported.

U.S. firms are considered to possess a clear-cut superiority in design and construction. As the demand for the more sophisticated and advanced equipment expands U.S. firms should find greater sales opportunities in France. In addition, the recent currency realignment places U.S. products in a more favorable price situation.

Joint Export Establishment Promotions (JEEPs) are special efforts by the Commerce Department to attract new firms into exporting through setting up specific Trade Center shows for new-to-market exhibitors, and defraying up to $300 of the cost of overseas promotional activities and up to $100 of the cost of shipping unsold items back to the U.S. or to another JEEP. All this is in addition to the regular Trade Center services.

For details, call Peter B. Field at 202-967-2435, or write him at BIC-228, U.S. Department of Commerce, Washington, D.C. 20230.

Worldwide Business Outlook

Signs Of Renewed Dutch Growth Brighten Scene For U.S. Exporters

American exporters to the Netherlands face a brighter situation than was the case a year ago. After a pause that started in mid-1971 and brought generally slower business growth, the Dutch economy now appears to be entering a period of renewed expansion.

The 1972 real GNP growth of 3.5 percent was higher than had been officially forecast and the projection for 1973 is for a further rise of 4.5 or possibly 5 percent. The upward trend sees 1973 manufacturing output increasing by 8 or 9 percent, versus 7.5 percent in 1972, and business investment by 8.5-9 percent, the latter contrasting with a decrease of roughly the same magnitude in 1972. Spending by the government on capital projects is also expected to rise under present plans for stimulative public investment.

Price and wage inflation continues to be a serious worry, but unemployment is edging downward, consumer spending is expanding and business inventory investment rising. Business confidence is being strengthened by these early signs of an overall gradual expansion.

Harold C. Voorhees, Commercial Attache at the U.S. Embassy in The Hague, expects that the momentum will gain speed in the second half to make 1973 a good business year.

Big share of rising sales

Despite the 1971-72 slowdown, key growth industries are continuing to expand, some significantly, while others are using the slack period to streamline operations for the period of resumed growth ahead. Voorhees expects this to entail extensive plant and equipment modernization, which should bode well for American capital equipment sales. Dutch imports are seen rising by 10 to 12 percent in 1973 and, given the lower dollar exchange rate, American exporters have a good chance of getting a better than average share.

The dollar value of Dutch imports from the United States in 1972 was in the neighborhood of an impressive $1.5 billion, equal to an 8 percent share of Dutch imports from all sources. This market share is slightly lower than in recent years but hopefully will rise as the longer-term marketing effects of the lower guilder-dollar exchange rate come into play.

More favorable guilder prices for U.S. exports and the expansionary forces building up in the Dutch economy set a nice stage for increasing both the volume and variety of American sales. Already the sixth best U.S. customer in the world, and third best in Europe, the Netherlands will continue to be an exciting, profitable and expanding market for American goods and services.

Leading the way

Capital goods and industrial materials traditionally account for about two thirds of American exports to the Netherlands and should provide excellent opportunities for increased sales as the Dutch economy, and particularly investment spending, expands. Pressed by rapidly rising labor costs and higher operating expenses generally, many local manufacturing and service industry firms are in the market for the kind of cost-cutting and efficiency-building equipment best procured from the United States.

While American products must often sell on quality rather than price, the realigned exchange rate inevitably makes a wide range of U.S. equipment more attractive to Dutch business managers than before.

Some of the best prospects include computer and related equipment; environmental control instrumentation and equipment; food processing and packaging equipment; pumps, valves and compressors; and instruments.

Other product areas offering good prospects in this market include marine cargo handling equipment; materials handling equipment and systems for industrial uses; printing equipment; health care equipment; petroleum and natural gas industry equipment; security devices and equipment; commercial and industrial airconditioning and refrigeration; transportation equipment; electronic service instruments and machinery; turbines and power machinery; and automotive diagnostic and inspection equipment.

Items of special interest

Also, while it may be several years before the project stage is reached, several Dutch municipalities are thinking about new inner-city and suburban transportation systems for reducing traffic congestion, city pollution and the operating deficits that many city bus and tram systems now incur. The basic aim will be to attract commuters away from personal auto use. Computer-operated systems now being tested and operated in the United States for these same purposes should be of special interest to municipal authorities.

The list of salable American industrial products also includes raw and intermediate materials required by Dutch manufacturing plants such as coal, coal tar, organic and inorganic chemicals, plastic materials, crude tar oils, pharmaceuticals, paper, and industrial photographic supplies. Imports of these and similar items from the United States have been

AMERICAN WINE PROMOTION IN AMSTERDAM—*American wines made a big hit with European importers at this U.S. wine tasting in Amsterdam late last year. Appearing with Dutch girls in authentic period costumes are, from left, Consul General Eugene M. Braderman; Ambassador J. William Middendorf; and Harry G. Serlis, president of the Wine Institute of California, representing 21 U.S. vintners.*

substantial over the years and should increase as the economy gains momentum.

Although it is currently the smallest dimension of the Dutch market for American products, consumer goods could turn out to be one of the faster growing areas in the long-term. Real disposable income of the average worker is up 15 percent in the last 4 years and Dutch per capita GNP is now 60 percent of the U.S. level.

Furthermore, recent income tax reforms favorable to working wives appear to be bringing a change in the traditionally low participation rate of Dutch housewives in the labor force, a shift that translates to a rising demand for household convenience products and for a number of services previously performed in the home.

Chain and department store retailing has expanded steadily in recent years, responding to rising consumer spending and a constantly widening demand for a broader variety of consumer goods. Also, consumer goods is a sector where the new guilder-dollar exchange rate should be particularly helpful to American sales effort.

Wearing apparel, do-it-yourself products, recreational equipment and American wines are some of the items attracting increasing importer interest. A large wine tasting last September in Amsterdam by the Wine Institute of California was heavily attended by the trade and reinforced a trend that should soon see American wines as standard items on Dutch supermarket shelves and hotel lists.

In the services field, good opportunities exist for franchising, joint ventures, and equipment sales in areas such as hotels, fast food shops, laundry and dry cleaning chains, and vehicle maintenance shops. In the last year two new McDonald's have opened in the Netherlands, while Marriot and Sonesta have announced plans for hotels in Amsterdam.

Front door to Europe

The Netherlands in reality is several markets. In addition to importing for its own consumption and for the needs of its large manufacturing export industries, it is a major gateway to the enlarged Common Market and to most of Europe. With Great Britain, Ireland and Denmark now members of the Common Market, the Netherlands is the hub of a nine-nation complex comprising 250 million people, a combined GNP exceeding $725 billion, and an annual foreign trade of $260 billion.

Some Dutch trading firms have had long experience in dealing with USSR and other eastern Europe markets and are interested in working with American companies approaching those markets for the first time. American firms based in the Netherlands have captured some sizable east European business. An American consulting engineer located there booked an order for a $30 million ethylene plant in Bulgaria in 1972, while a U.S. machinery firm sold $6 million in equipment for a tractor assembly line in the USSR.

As a nation of international traders, the Dutch are skillful and aggressive in marketing and very knowledgeable in foreign trade techniques. There are many qualified agents and distributor firms, most of them ready and eager to take on new lines and products having promising sales possibilities in the Netherlands and elsewhere.

Some 5,000 U.S. exporters are already active in this exciting market. They sell through appointed distributors or under other marketing arrangements and help to maintain the $4-5 million average daily flow of U.S. exports to the Netherlands. With the Dutch economy on the upswing and many other factors working in favor of U.S. suppliers, there is ample and widening scope for significantly larger American sales in both traditional and new product lines. These opportunities merit serious study by American firms not already on the bandwagon.

Promotional events in the Netherlands enable American manufacturers and exporters to bring new and promising product lines to the attention of prospective Dutch customers and distributors. At present, American trade missions to the Netherlands are tentatively scheduled for such product categories as computer software, building materials, and communications and micrographics. There also are plans for a series of American industry catalog shows at selected Dutch trade fairs including Milieu '73 (environmental control), Horecava '74 (food products industry) and Petrotech '74 (regulating and control instruments).

Philippine Economy Bounces Back; Greater Trade Opportunities Likely

An expanding Philippine economy should result in greater opportunities for U.S. exporters in the remainder of 1973.

Following the setbacks caused by the July 1972 floods on the island of Luzon and initial hesitancy on the part of some businessmen in the wake of the September declaration of martial law, Stephen R. Gibson, Commercial Attache at the U.S. Embassy in Manila, and most other knowledgeable observers anticipate renewed economic growth during the current quarter.

New Constitution

The long awaited new Philippine Constitution was promulgated in January, although an interim government is continuing under martial law. The new Constitution provides more flexibility for the government in encouraging foreign investment. While land ownership by foreigners is restricted and 60 percent Filipino equity continues to be required for businesses exploiting natural resources or operating a public utility, prior fears of confiscatory measures directed towards foreigners did not materialize.

A leading Philippine Government economic planner recently stated he expects the economy to grow by 7 percent in 1973. This would be somewhat above the rate achieved in 1971 and a significant increase over the 3.5 percent growth rate estimated for 1972.

In an effort to achieve its goals, the Philippine Government is putting more resources into economic development in 1973. Improved revenue and tax collection measures will provide the equivalent of an additional $225 million, all of which is destined to be spent on infra-structure projects such as irrigation systems and highways.

At the same time, members of the Philippine Consultative Group will make available nearly $350 million to finance development and flood rehabilitation projects. Of this amount, U.S. assistance for FY73 will reach $150 million, including a $50 million grant for flood relief and rehabilitation and a $20 million loan to finance imports of wheat and other commodities.

Concurrent with public sector development plans, the government is seeking to increase the flow of domestic and private foreign investment in the Philippines. Investment in automobile manufacturing should reach $125 million over the next two or three years. Five foreign companies (including Ford, Chrysler and GM) have been selected to participate in the Progressive Car Manufacturing Program. The program already has been extended to motorcycles and may be expanded to include trucks as well.

Other investments planned in mining, smelters, agriculture, petroleum exploration and refining, manufacturing and tourist facilities could push new foreign investment to $500 million by 1975.

Additional favorable factors

Additional favorable factors include the recent establishment of a new investment bank with foreign participation (two others are also planned), an agreement by a consortium of foreign banks to provide $50 million to the Development Bank of the Philippines to finance export industries and agricultural modernization, and a long-term private credit of $50 million for development of the Export Processing Zone at Mariveles.

The Laurel-Langley Agreement, which has permitted U.S. citizens and firms to participate fully in areas of the economy otherwise reserved to Filipino control, will expire July 3, 1974. Bilateral trade preferences under the agreement end Dec. 31, 1973. Until that date, however, Philippine duties on imports from the United States will continue at 90 percent of the normal tariff rate.

Many of the American companies operating in the parity areas are already taking steps to meet the Constitutional requirements on land ownership and Filipino equity.

Although the new Tariff and Customs Code reduced maximum import duties to 100 percent ad valorem, duties on a number of item were raised to provide more protection to local industry. A basic 10 percent duty rate on all imports was imposed as a revenue measure, thereby raising the internal price of items previously entered duty-free such as wheat, cotton and other agricultural imports of interest to exporters in the United States.

Other important trade constraints include a ban on the importation of several hundred categories of "luxury" consumer goods, many of which had been supplied by the United States. Moreover, while the Philippine balance of payments picture has improved and reserves are at record levels, a short-term debt problem has led the Central Bank to continue restrictions on foreign exchange availability for imports and to insist on long-term credits in many cases. The relaxation of customs and exchange controls is not foreseen by Commercial Attache Gibson in the near future.

Prospects for U.S. sales

U.S. exports to the Philippines for 1972 are estimated at $312.6 million, or about 25 percent of total Philippine imports. While U.S. exports in 1972 increased slightly in value over 1971, the trend over the past few years represents a steady erosion of the once dominant U.S. trade position in terms both of value and share of the market. Furthermore, a substantial part of U.S. exports to the Philippines

is in agricultural commodities financed under concessional U.S. Government programs.

Significant improvement in the U.S. trade position will depend to a large extent on aggressive marketing by U.S. companies. An added boost will come from the recent currency realignment, provided U.S. exporters do not increase the dollar price of their goods in search of windfall profits.

The Philippine peso followed the dollar. While this will result in little if any price advantage for the United States vis-a-vis local producers, competition from Japanese and European suppliers should be reduced accordingly.

Outlook could be bright

Assuming an upturn in the Philippine economy and government success in its development plans, prospects could be bright for improved sales of a wide range of American products. The mining sector promises to be strong and this will lead to increased demand for earthmoving and mining equipment. Plans to construct copper and nickel smelters are moving ahead and contracts should be signed this year.

Major roadbuilding projects on the islands of Mindanao and Luzon are scheduled; several of these will be financed by the World Bank or the Asian Development Bank and are open to international competition. Government efforts to stimulate growth in labor intensive industries such as textiles, garment manufacture and electronics assembly will generate opportunities for equipment sales in these fields.

In addition to the sectors outlined above, a recent Embassy survey indicates that demand should be particularly good in the following categories: materials handling equipment; business systems and equipment; health care industries instrumentation equipment; electrical generating equipment (some of which will be financed by an AID project loan); communications equipment; agricultural equipment; metalworking and finishing machinery; and food and beverage processing equipment. The FY1974 trade promotion program includes activities focusing on a number of these categories.

Financing will be a key factor in many sales. Philippine Government insistence on long-term financing, including lengthy grace periods, may force buyers to look elsewhere unless acceptable financing can be arranged from U.S. Government and private sources.

Tariff, Devaluation, Andean Pact Affect U.S. Exports To Venezuela

The market for U.S. products in Venezuela is changing.

U.S. exports will unquestionably be affected by Venezuela's new tariff schedule, which is scheduled to be inaugurated May 1, according to George Falk, Commercial Attache at the U.S. Embassy in Caracas.

Although it is still too early to predict the full impact of the tariff, it appears obvious that the Venezuelan market will open for products which were formerly restricted, that the Venezuelan consumer will be paying higher prices for a substantial number of imported items, and that some products imported under the outgoing tariff will be substituted or eliminated.

It is also expected that the 10 percent devaluation of the dollar by the United States and the subsequent 2.3 percent revaluation of the bolivar in relation to the dollar will substantially improve the U.S. export position and result in more imports from the United States at the expense of Western Europe and Japan.

Additionally, a preliminary appraisal suggests that initially U.S. exports to Venezuela will not be adversely affected by Venezuela's recent adherence to the Andean Pact.

Of particular interest to U.S. exporters will be Venezuela's forward looking decision to eliminate the import license requirement from some 560 items, thus making it possible for the United States to export freely many commodities which were formerly restricted. As a consequence, certain products such as automobiles, cigarettes, some canned and preserved foods, textiles, clothing, appliances, cutlery, television sets, candies, plumbing fixtures and other items which had been previously excluded may now be imported. The principal question, however, is the relative size of such a market, given the high duties placed on these imports.

Notwithstanding Venezuela's relaxation of import controls, the new tariff has been geared to protect local industry and to encourage its growth through high tariffs which ultimately may be lowered as local industry becomes more competitive.

Ad valorem system

The former low tariffs which previously were specific duties have been replaced by an ad valorem system, based on the Brussels Tariff Nomenclature using c.i.f. prices, with much higher rates of duty. Unfortunately, many products which are not being manufactured locally have been grouped under the same high duties as those which are receiving the benefits of protection.

A case in point is the toy industry. Under the old tariff, duties ranged from Bs. 4 to Bs. 7 per kilogram while under the new tariff all toys are subject to a duty of 150 percent ad valorem, even though mechanized toys, for example, are not manufactured locally. There is no doubt that prices for imported toys will soar in months ahead.

This same situation of high tariffs for goods not being pro-

duced locally will be applicable for scores of other products, with the end result of higher prices to the public.

An interesting example which reflects a change in the old and new tariffs is noted in the importation of pumps and compressors. Under the old system the duties for one grouping of imports under this category would have amounted to approximately Bs. 2,705 for the year based on the former duty of Bs. 0.001 per kilogram. Under the new tariff the duties for the same amount of imports would reach over Bs. 4 million, based on a c.i.f. value at the current 10 percent rate of duty. The majority of these pumps and compressors are not manufactured locally but are sorely needed for Venezuela's continued industrial growth.

Then, too, there are some products which may disappear from or at least diminish in the Venezuelan market as a result of excessively high duties. A review of the new tariff schedule reveals that almost 600 classifications have duties of 100 percent or more, with some reaching as high as 350 percent. It is probable that excessively priced goods will give way to cheaper substitutes of inferior quality.

Despite the somewhat gloomy outlook that an exporter may face when attempting to penetrate a foreign market with high duties, there are some bright spots on the Venezuelan horizon.

Special tariff commission

With regard to its tariff, the Venezuelan Government is making every effort to iron out basic problems inherent in a complete changeover from one tariff structure to another. To achieve this aim, a special tariff commission has been established to review suggestions and make recommendations to the Executive for changes in the tariff which are considered to be advantageous.

Thus far, several governmental decrees, involving dozens of items, have been issued, resulting in generally lower tariffs. There have also been further breakdowns of global classifications, sorting out locally produced articles from those not in competition with the local market, and a realignment of tariff duties accordingly.

Another positive factor for U.S. exporters is the Venezuelan Government's apparent willingness to approve tariff exonerations when in the interest of the nation to hold down prices and stimulate economic growth. Hence, many importers have been assured that they will receive favorable consideration under an exoneration policy if they are able to present a valid argument for such action.

U.S. exporters should also profit from Venezuela's determination to strengthen its industrial base to the point where it will be able to develop and expand its industrial development program. To meet these objectives, Venezuela will require raw materials and capital goods which the United States is able to furnish to the mutual benefit of both countries.

Export stimulus bill

A competitive Venezuela could doubtless find additional export potential for its products within the Andean Pact nations, the Caribbean area, other Latin American countries, and elsewhere. To achieve this goal, an export stimulus bill has been introduced in Congress and is expected to receive serious consideration during the present session. If Venezuelan exports become more competitive, bilateral trade between the U.S. and Venezuela will benefit.

U.S. exporters should also substantially profit vis-a-vis competitive third countries as a result of devaluation. This advantage is further heightened by the c.i.f. feature of the new tariff, which calculates the cost of transportation in assessing the duty of a given item. Thus, other factors being equal, merchandise coming from more distant nations will be charged a higher tariff if the transportation cost is greater than that from the United States.

It is anticipated that U.S. exports initially will not be significantly affected as a result of Venezuela's entrance into the Andean Pact which, at present, lacks only the formal approval of the Congress. As indicated by an official of the Venezuelan Government, intra-Pact trade is approximately 4 percent of all foreign purchases, and this figure may go as high as 6 or 7 percent by 1985. The level of tariff removal under the Cartagena Agreement is not sufficient to generate important currents of trade between the Andean Pact countries in the near future. At present Venezuela's imports from the other Andean Pact countries amount to about 1 percent of its total imports.

Further offsetting the possible disadvantages resulting from the new tariff to U.S.-Venezuelan trade relations is the healthy state of the Venezuelan economy, which gives every promise of future expansion and capacity for absorption of increased prices. A steady growth rate in GDP over the past few years, a steadily growing market for imports, a freely convertible currency, an increase in monetary liquidity, increased consumer buying power, and a generally healthy economy all favor a continuation of growth of trade between the United States and Venezuela.

Spain-U.S. Chamber Offers Prize For Best Trade Study

The Spain-U.S. Chamber of Commerce is sponsoring a competition on the subject of trade relations between Spain and the United States. The author of the best study will receive 90,000 pesetas (about $1,550) in cash, a New York-Madrid roundtrip and a four-day stay in a Madrid hotel, and a luncheon held in the author's honor by the Chamber in New York. Entries must be received by Oct. 1.

Write: Spain-U.S. Chamber of Commerce, Inc., 500 Fifth Ave., New York, N.Y. 10036.

World Trade Actions

Bangladesh Cancels Pre-1971 Trademarks

The Bangladesh Government recently issued a Trade Marks (Invalidation and Summary Registration) Order 1973 which has the effect of cancelling in Bangladesh all trade marks registered in Pakistan before March 26, 1971. Applications filed for trademark registrations in Pakistan now are deemed not to have applicability to Bangladesh.

Trademark owners are advised to apply for new registrations in Bangladesh to the Registrar of Trademarks, Ministry of Commerce (House #1/4, Block B Mohammedpur Housing Estate, Opposite Shaheed Suhrawardy Hospital, Mirpur Road, Dacca). Applications for new registrations of formerly applicable Pakistan marks should include the original certificate of registration in Pakistan plus a photocopy and last renewal certificate, if any.

Applications for new registration of Pakistan-registered marks cancelled in Bangladesh under the Bangladesh Order must be filed before March 13, 1974 (one year from date of order). Such new applications will not entail usual examination and opposition procedures; registrations will be based largely on production of evidence of a prior Pakistan registration. Fee for such registration under this Order is TKS 50 (U.S. $6.60). Applications filed in Bangladesh between March 26, 1971 (Independence Day) and March 13, 1973 are deemed to be applications filed under the Order.

Nigeria: The Central Bank has shortened the mandatory delay in release of foreign exchange for payment for imports. As of April 1, funds are being released 90 days from date of shipment to Nigeria (i.e., date of Bill of Lading or Airbill) or date of arrival in Nigeria, whichever is later. Applications for release of foreign exchange must be accompanied by proof that the goods have been cleared through customs. This new regulation replaces the former requirement that payment be delayed until 180 days from arrival date. Payments regulations remain unchanged for goods previously payable on sight or for large capital goods imports payable over a one-to-four year period.

Indonesia: The Minister of Health, in Decree No. 149/Kab/B.VII/72 dated July 4, 1972, requires the compulsory registration of imported and locally-produced processed foods circulating in the Indonesian market. Such foods already in circulation in Indonesia must have been so registered by April 1. Once obtained, this food registration must be renewed at four year intervals and appropriate fees paid. For further information write Far East Division, OIM/BIC, U.S. Department of Commerce, Washington, D.C. 20230.

Korea: On Feb. 5 the Ministry of Finance announced a partial tariff reform, to be effective immediately. While the reform mainly involved tariff reductions, no significant effect is expected on import or revenue levels. Items of interest to U.S. exporters on which tariffs were reduced include: breeding animals (10 percent to free); milk cows (10 percent to free); phthalic anhydride (62 percent to 50 percent); locomotive boilers (50 percent to 10 percent); locomotive engines (20 percent to 10 percent); air conditioning equipment (100 percent to 80 percent); petrochemical pumps for liquids (50 percent to free); and refrigerators (100 percent to 80 percent). The new official tariff, however, has not yet been published.

In a separate action, the Ministry of Finance reduced the duty on copper scrap, when used in the iron and steel, smelting and casting industries, from 10 percent to 5 percent. The United States supplied better than 80 percent ($4 million) of the Korean copper scrap import market in 1971. For further information contact the Far East Division, OIM/BIC, U.S. Department of Commerce, Washington, D.C. 20230.

AT CLEVELAND WORLD TRADE CONFERENCE—*Mrs. Jayne Baker Spain of the Civil Service Commission, who was active in world trade for two decades as president of the Alvey-Ferguson Co., Cincinnati, was a major speaker at the 28th annual meeting of north Ohio traders. Sven A. Langmack (left), of the Empire Plow Co., was chairman; Charles B. Stebbins (right) is director of the Commerce Department Cleveland District Office.* *(See also Newsmemo item, Page 17.)*

International Business Reports

Proceedings of U.S.-Soviet Trade Conference. Published by the National Association of Manufacturers. Speeches are available for $5 per set plus postage; proceedings will be available in early May at $10 plus postage.

These papers report Soviet delegation speeches and proceedings of NAM's U.S.-Soviet trade conference held Feb. 27-28 in Washington.

The conference was attended by some 700 company executives. Soviet participants emphasized their readiness to move ahead now in a number of purchasing and joint venture transactions with U.S. firms.

Write: National Association of Manufacturers, Attn: Nicholas E. Hollis, 1133 15th St. N.W., Washington, D.C. 20005.

Administrative and Marketing Geography of France. Published by the Market Compilation and Research Bureau Division of Dart Industries Inc. 6pp. Free.

This booklet might be of interest to those using direct mail to reach the French market. It explains the French system of postal separation and postal coding as well as the French system of basic geographical divisions, contains some population statistics, and shows sample addresses with explanatory notes.

Write: Lewis Rashmir, Dart Industries, Inc., 15233 Victory Blvd., Suite 612, Sherman Oaks, Calif. 91403.

Voting and Decisions in the International Monetary Fund. By Joseph Gold. 368pp. $6.50.

This book may be of interest not only as an account of the working of the International Monetary Fund but also as an examination of the process by which decisions are taken in one field of international activity.

Gold describes the origin, negotiation and purpose of the Fund's elaborate framework for taking decisions, and the composition, powers and procedures of the organs of the Fund, the Board of Governors and the Executive Directors. He deals also with the role of the Managing Director and the staff. Finally, there is a discussion of the work of committees of the Fund. The Fund's Articles of Agreement are reproduced in full.

Write: International Monetary Fund, 19th & H Sts. N.W., Washington, D.C. 20431.

The Pattern of Reform in Hungary: A Political, Economic and Cultural Analysis. By William F. Robinson. 467pp. $21.50.

Studies the broad scope of reform throughout the Hungarian system since the death of Stalin, tracing its background and roots and analyzing foreign and domestic influences. Hungary's pragmatic approach to economic reform since decentralization and the introduction of multichannel marketing in 1968 is noted.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

Förderung privater Direktinvestitionen (Advancement of Private Direct Investment). By Hans-Eckart Scharrer. 1972. In German. Published by Verlag Weltarchiv GmbH Hamburg. 633pp. Approx. $9.

This study represents a valuable addition to the contemporary literature of comparative investment analysis. It was undertaken by the HWWA—Institut für Wirtschaftsforschung (Institute for Economic Research)— Hamburg, under the auspices of the Federal Ministry for Economics and Finance in Bonn.

General problems concerned with the development and measurement of direct investment in foreign areas are treated first, followed by an examination of the extent of foreign investment by the United States, Great Britain, France, Japan and Germany. The analysis focuses on incentives and deterrents to investment, and the goals of capital exporting countries.

Write: Verlag Weltarchiv, 2 Hamburg 36, Neuer Jung fern stieg 21, Germany.

Calendar For World Traders

May 1-2—New York—"The Multinational Company Story — Communicating at the Grassroots Level," World Trade Institute. Contact: D. Moffit at 212-285-4452.

May 3-5—Budapest — Sixth Conf. on East-West Trade, sponsored by the American Management Assn.'s Management Center-Europe. Contact: Thom O'Connor at 212-586-8100.

May 4—South Bend, Ind.—New European Common Market seminar, Notre Dame U. Speakers: Lawrence A. Fox, acting Asst. Secretary for Domestic and International Business, and Carl Gerstacker, Chairman, NEEC.

May 4—Washington, D.C. — Conference on Soviet-U.S. Commercial Relations, George Washington U. Commerce speaker: Steven Lazarus, Dep. Asst. Secretary for East-West Trade

May 7-8—London — FCIB/Europe international round table on finance, credit and collection problems, Europa Hotel. Contact J. Stewart Gillies at 212-725-1700.

May 9-10—New York—"DISC Era —Year 2", World Trade Institute. Contact: D. Moffit at 212-285-4452.

May 16 — New York — "Labor's View of the Multinationals", World Trade Institute. Contact: D. Moffit at 212-285-4452.

May 16—North Kansas City, Mo. —Commerce/SBA joint seminar on world trade. Gold Buffet, 16th & Iron, 9 a.m.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

Licensing, Investment Abroad

0910—JAMAICA—Partner sought to expand **finfish and lobster fishing operation.** U.S. company should be prepared to offer 1-2 modern fishing vessels, captained by an American, an engineer, at least one experienced fisherman and train local crew. Send inquiries to the Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. P-73301.

1041—LIBERIA—Joint venture sought to develop a **gold mining concession.** Up to 49 percent equity offered. Concession is 400 sq. ft. near Bokan Jedeh in Sinoe County. Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. P-73312.

2431—SINGAPORE—Licenses, joint venture, turnkey agreements to manufacture **prefabricated wood doors and windows.** Initial production of 5,000 units per week. Currently, Singapore constructing 30,000 apartments annually. The Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. P-73302.

2621—TURKEY—State enterprise plans to establish **pulp and paper mill.** Complex will also include **particleboard plant and saw mill.** Plans call for manufacture of 150,000 tons of kraft liner or 90,000 tons of kraft sack annually. Feasibility study has been completed on project. Interested U.S. firms write Turkiye Seluloz Ve Kagit Sanayii, Kurumu Genel Mudurlugu, Izmit, Turkey. P-73292.

2631—ITALY—**Liner board mill** for sale. Price set at $2.65 million; attractive terms. Plant not operating at present time. Further information available from Jean-Michel Gal, Trade Promotions, European-American Banking Corp., 10 Hanover Sq., New York, N.Y. 10005. P-73298.

2819, 2821 — AUSTRIA — Licenses to process **crude gypsum,** a by-product of phosphoric acid production, into a commercially useful product. Licenses for new, sophisticated applications of **polypropylene.** Firm is largest Austrian chemical manufacturer. Dkfm. Reinhold Kaisergruber, Oesterreichische Stickstoffwerke A.G., St. Peter 224, A-4020 Linz, Austria. WTDR. P-73296.

2819—INDIA—License to manufacture activated and precipitated **calcium carbonate.** Plans call for production of 10,000 m.t. annually. Firm makes surface active agents, synthetic resins, wires and steel ropes. A. Gopalan, Secretary, Bombay Wire Ropes Ltd., 401/405 Jolly Bhavan No. 1, 10 New Marine Lines, Bombay, 400020, India. Firm representative plans to visit U.S. during mid-May and may be reached c/o Benilite Corp. of America, Inc., 233 Broadway, New York, N.Y. 10017. WTDR. P-73290.

2821—YUGOSLAVIA—Joint venture to produce 50,000 tons of **polyvinyl chloride** annually, using suspension polymerization process. Seeks partner who could supply 50,000 tons of vinyl chloride each year, plus equipment and technology. Investment estimated about $15 million, of which half might be equipment imported from U.S. Major plastics producer currently making 25,000 tons PVC annually. Zdravko Adoric, General Director, Jugovinil, P.O. Box 127, Split, Yugoslavia. P-73309.

2834 — FRANCE — Licenses sought for **liquid dietetic meals for operated patients and certain sick persons.** Established in 1957, firm manufactures and sells pharmaceutical products. Employs 50. Laboratories Richard, 22 rue Daujat, 26202 Montelimar, France. WTDR. P-73307.

2834—MALTA—Joint venture to manufacture **pharmaceutical products** for local and export market. Seeks financial and technical aid. New firm headed by Secretary General of Malta Labor Party. Pharmaceuticals are not now produced locally. J. C. Azzopardi, 3 Triq Il-Habs Il-Quadim, Birgu, Malta. P-73308.

2869—YUGOSLAVIA—Joint venture to produce a **plasticizer,** 25,000 tons annually, based on two-ethyl hexanol and phthalic anhydride. Investment estimated at about $3.5 million. Firm is major plastics producer. Zdravko Adoric, General Director, Jugovinil, P.O. Box 127, Split, Yugoslavia. P-73310.

3011—MALTA—Joint venture to **manufacture tires** for local market and export. Seeks financial and technical aid. New firm headed by Secretary General of Malta Labor Party, presently associated with large rubber manufacturer. Tires are not now manufactured locally. J. C. Azzopardi, 3 Triq Il-Habs Il-Quadim, Birgu, Malta. P-73299.

3312—YUGOSLAVIA—Established steel producing group planning a **heavy plate mill** to produce 500,000-700,000 tons steel plate annually for use in the Yugoslav shipbuilding industry. While essentially seeking to purchase equipment for such a plant, a U.S. firm prepared to consider a joint venture would be given priority. Vladimir Roje, General Director, Jadranska Zeljezara—Split, Radnicko Setaliste 22, 58000 Split, Yugoslavia. P-73315.

3462—INDIA—Manufacturing rights for **industrial roller chains.** Also seeks assistance in purchase of necessary equipment. Plans to produce chains in following lengths: ½" x 5/16"; 5/8" x 3/8"; ¾" x ½"; and 1" x 5/8". Firm presently

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $5 from the Department of Commerce, BIC-266, Washington, D.C. 20230, or from any Commerce Field Office.

OPIC indicates that the country involved is eligible for investment insurance coverage written by the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

makes bicycle chains with Czech technical know-how. Velo Industries, Mahatma Gandhi Rd., Bhavnagar 1, Gujarat, India. P-73314.

3531—AUSTRIA—Manufacturing rights for **plastering machines** used to coat the inside and outside walls of buildings. Also interested in new processes for finishing wall surfaces. Firm produces machinery for the building industry. Sales and service organization covers the entire Austrian market. Franz Stelzl, KIMA-Maschinen O.H.G., Wienerstr. 10, A-8020 Graz, Austria. P-73303.

3559—AUSTRIA—Major steel company seeks licenses to produce **water purification equipment.** Wants to make machinery suitable for treatment of municipal waste water. Company has extensive experience in treatment of industrial effluents, is expanding activities. Dr. Helmut Schmoelzer, VOeEST-ALPINE A.G., P.O. Box 2, A-4020 Linz, Austria. WTDR. P-73293.

3559—SWITZERLAND—Licenses to produce equipment for the **recycling of industrial waste and by-products.** Interests include machinery for recycling wastes from manufacture of pharmaceuticals, food; equipment for treatment of corrosive solutions such as acids, alkalies produced by dry cleaning operations and metal surface treatment; and machinery for recycling of slaughterhouse waste into products used in making detergents, cosmetics and fertilizers. Could include fat boiling plants, separating and shredding apparatus. Firm is established manufacturer of nuclear reactor equipment, chemical machinery, other heavy items. Specializes in precision welding. Operates two plants, has agents in most industrialized countries. Dr. Jacques Trueb, Ateliers de Constructions Mechaniques Vevey, S.A., 1800 Vevey, Switzerland. P-73297.

3564, 3585—SWITZERLAND—Manufacturer of air conditioning, ventilating equipment seeks representation or licensing arrangement to make additional products. Interests include **ventilating equipment, room air conditioners, commercial refrigeration equipment and compressors** and related equipment of an advanced nature. Firm maintains own sales and servicing network. Employs 100. Has excellent reputation. J. Koller, mgr., Krueger & Co., 9113 Degersheim, Switzerland. WTDR. P-73295.

3567—INDIA—Established manufacturer of steel mill and other engineering furnaces desires technical collaboration for the production of **aluminum industry furnaces.** Initial plans call for the manufacture of six units annually with a gradual increase to meet domestic demand. G. Shahani, technical director, Bombay Furnaces Private Ltd. (BFPL), 5 Stadium House, Veer Nariman Rd., Bombay 400020, India. WTDR. P-73313.

3569 — FRANCE — Licenses to produce small to medium-size **filtration equipment.** Will also consider agency agreement. Currently manufactures filters, greasing equipment. Employs 50. J. Ray Capet, commercial manager, A.M.F.G., 39 rue du Moulin des Bruyeres, 92—Gourbevoie, France. WTDR. P-73300.

3592—TURKEY—Joint venture to produce **piston rings for all types of diesel and gasoline engines.** Seeks technical assistance, capital participation. Plans to produce six million piston rings annually. Will purchase production equipment valued at $1.5 million abroad. Firm's study indicates current consumption of four million piston rings met by imports. Segman Sanayi Ve Ticaret A.S., Aksu Han Kat 2 Ve 3, Galata, Istanbul. Further details available from the Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. P-73294.

3622 — SWITZERLAND — Newly established manufacturer of **process controls** seeks to expand. Wants licenses to produce integrators for electronic precision DC current measuring; small electronic process controls, related calculators for use by chemical, pharmaceutical, food industries. Firm makes sophisticated automatic flow meters; has well equipped facility, and young, aggressive management. Juerg Boss, PIDAC AG, Bleichestr. 51, 3066 Stettlen, Switzerland. P-73305.

3670—INDIA—Licenses to manufacture **electronic components.** Interests include solid electrolyte tantalum capacitors, alpha numerical displays, light emitting diodes, memory units for computers, liquid crystal displays and mechanical resettable counters. Also seeks assistance in preparing detailed feasibility report on the project. Firm is engaged in importation of dyestuffs, production of dyes. N. K. Joshi, managing director, Kabbur Industries Private Ltd., 3 Bastion Rd., Fort, Bombay 400001, India. WTDR. P-73304.

3714—TURKEY—Licenses to manufacture 15,000 **transmission gears** annually for Ford or Massey-Ferguson tractors. Needs technical know-how, does not seek capital. Project has received government approval. Firm presently produces transmission gears, gear boxes. Employs 200. Pankurt Sanayi Ltd. STI., Cicozyolu Sokak 16, Istanbul. P-73311.

3811, 3662 — ITALY — Manufacturing rights or representation for **air pollution test equipment, electronic production testing apparatus and microwave burglar systems.** Firm presently produces electronic components, relays, switching devices. Operates three plants; reports annual sales of $12 million. Representatives of firm plan U.S. visit in May, interested in meeting East Coast companies. Mario Tosti, technical manager, CEME, Compagnia Equipaggiamenti Meccanici Ed Elettronici, S.P.A., Piazza Mercato 11, 04100 Latina, Italy. P-73306.

Licensing In U.S.

For additional information on opportunities to manufacture foreign firm's products in the U.S., write: Office of International Finance and Investment, BIC-286, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-2248) referring to the appropriate file number.

SWITZERLAND—Product: Rubber processing machinery. File 2378

SWITZERLAND—Product: Patents and manufacturing rights to a sine angle table for milling and hobbing operations, and for precision grinding; and a universal drilling fixture. File 2379

SWITZERLAND—License or joint venture with U.S. company, preferably electric utility company, for production of transformer stations in U.S. File 2380

SWITZERLAND — Product: Injection-molded material handling boxes made of high density polyethylene. Units about nine pounds. Swiss company will supply the molds. File 2381

SWITZERLAND — Product: Cosmetics, gels, lotions, powders. File 2382

SWITZERLAND — Product: Universal bender for metal parts. File 2383

SWITZERLAND — Product: Pneumatic street cleaning machines. Its almost completely closed air circuit creates practically no dust. File 2384

SWITZERLAND — Product: Semi-automatic and space-saving pallet car parking system. File 2385

SWITZERLAND—Product: Patented device which, attached to pneumatic tools, injects an automatically controlled quantity of lubricating, cleansing and defrosting agents into the hoses. File 2303-R

State of Sao Paulo Aids Foreign Investors Seeking To Locate In Interior

To further promote industrial development in the inner regions of the Brazilian State of Sao Paulo, the state government has established a new agency to assist prospective investors.

The new agency, Balcao de Projetos (literally, the Counter of Projects) provides free services such as investigating suitable sites for a particular plant location and information on labor force, social infrastructure, taxes, climate, soil, utility supply, communications, transportation and availability of financing. It will also furnish complete maps of the area including aerial photographs. In addition to site selection, it will assist investors in dealing with the local government in obtaining utility connections, telephones, building permits and landscaping of the plant site, and follow-up activities to a successful start. Basic information is generally provided within twenty days.

Balcao de Projetos was created last May, employs 13,000 people and has located sites for 81 projects. There are also ten regional offices.

U.S. firms are urged to take advantage of the services offered. All information submitted to Balcao de Projetos is handled confidentially and disclosed only with the permission of the firm itself. Interested parties should contact Balcao de Projetos, Secretaria do Planejamento, (Coordinadoria da Acao Regional), Palacio do Governo, Morumbi, Sao Paulo, Brazil. P-73169. OPIC.

New Trade Lists

The Bureau of International Commerce has published the following Trade List, of which mimeographed copies may be obtained by firms domiciled in the United States from: BIC-266, U.S. Department of Commerce, Washington, D.C. 20230, and from Department of Commerce District Offices. The price is $1 per list.

State Trading Organizations—Czechoslovakia—April 1973.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, BIC-267, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U. S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available for $5 from the U.S. Department of Commerce, BIC-266 Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDR's and request forms is available at local Commerce Field Offices.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Foreign private firms and government agencies are interested in direct purchases of these products. See also "Representations" listing.

Iron ores

10110 — SPAIN — Iron ore. E.X.U.M.E.S.A. Apartado Postal No. 36177, Madrid.

Anthracite

11110 — AUSTRALIA — Anthracite coal for use in filters, water treatment plants etc. Quantity required would be up to 1000 tons per yr. in 100 ton multiples. Two grades—8 x 14 mesh and 10 x 16 mesh. Would appreciate approx. 1 cu. ft. sample if possible. Aqua-Wright Div. of Wright & Co. Pty. Ltd. (M, I, A), 32 Maddox St., Alexandria, N.S.W. 2015.

Meat products

20119 — TURKEY — 10 tons wet and dry salted hides for manufacture of shoes; conveyor belts. Individual hides should weigh between 16 and 20 kilos. Hayim Bencuya Ve Ortaklari (I, M), Posta Kutusu 821, Izmir. Wishes price quotations for varying grades of cured hides.

Canning, preserving foods

20310 — NETHERLANDS — Canned fish, salmon, crab, tuna; direct imports. A. Klaver En Zonen, B.V., Attn: G. Koopman (I, D), P.O. Box 90, 2 Einthovenstr., Alkmaar. WTDR 2/73.

20330 — JAPAN — Canned foods including fruits, vegetables for use on ships. S. U. & Co. Ltd. (I, D, R), 51-6 Higashi Minatomachi, Moji-Ku, Kitakyushu.

20353 — PORTUGAL — Sauces for meat, except tomato. Wholesaler of food products. Alberto Gomes De Oliveira, Lda. (I, R), Rua S. Joaquim 6-A E 6-C (A Sta. Isabel), Lisbon.

20354 — PORTUGAL — Mayonnaise, salad dressings, sandwich spread. See listing 20353—Portugal. Alberto Gomes De Oliveira, Lda. (I, R), Rua S. Joaquim 6-A E 6-C (A Sta. Isabel), Lisbon.

20361 — JAPAN — Mullet roe, fresh block frozen. Tokai Umezawa Co., Ltd. (I, D), 34-22 Nishiki 3-Chome, Nakaku, Nagoya 460. WTDR 12/72. Wishes to import directly from catcher.

20361 — NETHERLANDS — Frozen eels. Firma de Boer/Glasz, Attn: Mr. Glasz (I, R), Pieter Appelplein 66, Monnickendam.

20331, 20371, 20860—AUSTRALIA—Passionfruit produce of Hawaii, canned; frozen; and bottled, canned soft drink. Direct purchase or agency. Ian G. Walker & Assoc., Ian G. Walker (I, A, D), 4 Tarakan Crescent, Northbridge, NSW 2063. Firms should indicate c.i.f. Sydney prices with specifications, i.e. viscosity, seedless, frozen or preservative added, general character.

Grain mill products

20422 — CAMEROON — C S. M. (corn, soya beans and milk) feed for pig farm. Purchase in 20 ton lots, needs 100 tons annually at present production levels. George N. Eko (I, R), P.O. Box 169, Victoria. WTDR in prep.

20460 — IVORY COAST — Glucose (corn syrup): 500 metric tons; prefers purchase in lots of 80-100 tons/mo. but willing negotiate. Product specification: 43 deg. baume; mode of conversion: acid-enzyme; d.e. 36/39; density at 15 deg. centigrade 1.42; dry weight 78.7 a 79mt. per cent; sulfur dioxide content; 350 ppm. Monsieur Lafond, Dir., Grands Moulins D'Abidjan (M), Boite Postale 1,743, Abidjan. Telex 740; cable address: Moulins Abidjan. Needs quotations soonest by telex or cable.

Bakery products

20521 — PORTUGAL — Crackers, Pretzels, Biscuits. See listing 20353—Portugal. Alberto Gomes De Oliveira, Lda. (I, R), Rua S. Joaquim 6-A E 6-C (A Sta. Isabel), Lisbon.

Confectionery

20716 — PORTUGAL — Confectionery-type products, bulk and packaged, including solid chocolate; all types made from purchase chocolate. Alberto Gomes De Oliveira, Lda. (I, R), Rua S. Joaquim 6-A E 6-C (A Sta. Isabel), Lisbon.

Beverage industries

20871 — SWITZERLAND — Flavoring extracts, essences vanillin. A. Dzialoszynski (A, I), Spalenring 40, 4055 Basel. WTDR 3/73.

20874 — PORTUGAL — Powdered drink material in various flavors. See listing 20353—Portugal. Alberto Gomes De Oliveira, Lda. (I, R), Rua S. Joaquim 6-A E 6-C (A Sta. Isabel), Lisbon.

Food preparations

20922 — GREECE — Soy flour; 44 percent protein for poultry feed, 250 tons. Ptinotrofikos Syneterismos Thessalonikis (I, D), 12 Kastritsiou St., Thessaloniki. Interested in immediate purchase; c.i.f. Thessaloniki price, delivery date requested.

20991 — PORTUGAL — Desserts (ready-to-mix), not frozen. See listing 20353—Portugal. Alberto Gomes De Oliveira, Lda. (I, R), Rua S. Joaquim 6-A E 6-C (A Sta. Isabel), Lisbon.

20999 — AUSTRALIA — One to two tons of dried American parsley. Firm has sample it wishes to match. H. J. Langdon & Co. Pty. Ltd., Attn: J. R. Hume (I, A, D), 117-119 Harris St., Pyrmont, N.S.W. 2009.

20999 — SWITZERLAND — Spices all kinds. A. Dzialoszynski (A, I), Spalenring 40, 4055 Basel.

Broad woven fabric mills, cotton

22110 — FRANCE — Unbleached textiles, manmade fibers. Direct purchase & agency. Bernheim C. & Fils (A, I), 33 Rue Des Jeuneurs, 75002 Paris.

22116 — ISRAEL — Cotton and synthetic corduroy Investex import-export, ltd. (I, E), 21 Sirkin St., Tel Aviv.

Broad woven fabric mills, manmade fiber, silk

22210 — FRANCE — Unbleached textiles, manmade fibers. Direct purchase & agency. Bernheim C. & Fils (A, I), 33 Rue Des Jeuneurs, 75002 Paris.

22218 — NEW ZEALAND — Plain acetate satin 6000 and 8000 thread in widths of 44 or 60 in., roll lengths 100 yds., to use as bindings for blankets. Normal annual requirements 80,000 yds. Textile Era Ltd., Attn: D. K. Kincaid (I, M), PMO. Box 38-412, Wellington.

Knitting mills, products

22513 — GERMANY — Orlon, or equal, knee socks for ladies for resale; would appreciate exclusive basis for Germany; expects to sell between 50 - 200,000 pairs per year depending on quality. Include airfreight expenses to Frankfurt in price quotation. Prefers correspondence in German. David C. Lacey, Jr., Commercial Officer, American Consulate General, 7 Urbanstrasse, D-7000 Stuttgart.

22522 — ITALY — Baseball socks; Macron Sport S.R.L. (I, D), 26/A Via Firenze 40139 Bologna. Wishes to resell wholesale in Italy.

Dyeing finishing textiles, except wool fabrics, knit goods

22610 — FRANCE — Bleached textiles, cotton. Direct purchase & agency. Bernheim C. & Fils (A, I), 33, Rue Des Jeuneurs, 75002 Paris.

22620 — FRANCE — Bleached textiles, man-made fibers. Direct purchase & agency. Bernheim C. & Fils (A, I), 33, Rue Des Jeuneurs, 75002 Paris.

Yarn, thread mills, products

22814 — HONG KONG — 300,000 lbs. 2/6A conjugated acrylic yarn. Michel of Hong Kong (I, A, Exporter), P.O. Box 6335, Kowloon. WTDR in prep. Desires April shipment if possible, May shipment at latest.

Textile goods

22940 — FRANCE — Polyester flock-unbleached; 60 mm. fibers. Textile De Villiers (M, D), Port De Lille - 10E Rue, 59000 Lille (Nord). WTDR 9/72.

Broad woven fabric mills, manmade fiber, silk

22253 — BAHAMAS — Polyester fabric sold by yard; suitable for pants; preferably sixty in. in width, all colors. Mr. Bain owns small retail firm which sells clothing, and fabrics. He now wishes to sell wholesale. E. R. Bain, Clement Co. Ltd. (I, R), P.O. Box N-565, Nassau.

22953 — ISRAEL — Artificial leather for furniture upholstery. Zbotiv (A), 238 Dizengoff St., POB 5080, Tel Aviv.

Men's, boys' furnishings

23214 — BAHAMAS — Light-weight shirts, all kinds made of cotton, polyester, etc. E. R. Bain, Clement Co. Ltd. (I, R), P.O. Box N-565, Nassau. See listing 22253—BAHAMAS.

23282 — AUSTRIA — Work clothing (overalls, 1-piece work suits, work jeans & jackets) and washable service apparel. Firm is leading member of association of European mail orders. Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz.

23282 — FRANCE — Disposable working clothes. Hamet (A, D, I), 6, Rue de St. Gratien, 93800 Epinay-Sur-Seine (Seine-St-Denis).

23292 — AUSTRIA — Sports wear and seersucker leisure wear for men, boys. See listing 23282—Austria. Modenmeuller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz.

23292 — ITALY — Modern teenage denim velvet corduroy jeans jackets and casuals. Interested in buying on exclusive basis for Italy from small and medium-size U.S. firms only; may also be willing to manufacture above clothing according to patterns provided. Gets supplies from large U.S. clothing manufacturers and sells locally as well as to France and Belgium. Boutique Mr. Fiz (I, R), Via Parini 10, 10121 Torino.

Women's, misses', juniors' outerwear

23310 — AUSTRIA — Sportswear and seersucker leisure wear for women, girls. See listing 28232—Austria. Modenmeller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz.

23317 — BAHAMAS — Light-weight women's and misses blouses, shirts. E. R. Bain, Clement Co. Ltd. (I, R), P.O.B. N-565, Nassau. See listing 22253—BAHAMAS.

23351 — AUSTRIA — Casual maternity wear. Modenmueller, Attn: Paul Neuburger (I, R). Wienerstrasse 286. A-3021, Graz. See listing 23282—AUSTRIA.

23351 — BAHAMAS — Women's and children's light-weight dresses. E. R. Bain, Clement Co. Ltd. (I, R), P.O.B. N-565, Nassau. See listing 22253—BAHAMAS.

23374 — BAHAMAS — Women's and children's skirts, jackets of light-weight materials. E. R. Bain, Clement Co. Ltd. (I, R), P.O.B. N-565, Nassau. See listing 22253—BAHAMAS.

Women's, misses', children's, infants' under garments

23421—AUSTRIA—Brassieres, bra-lettes, and bandeaux for re-sale. Modenmueller, Attn: Paul Neuburger (I,R), Wienerstrasse 286, A-8021, Graz. See listing 23382—AUSTRIA.

23422 — AUSTRIA — Foundation garments. Modenmueller, Attn: Paul Neuburger (I, R), Wienertsrasse 286, A-8021, Graz. See listing 23282—AUSTRIA.

Hats, caps, millinery

23522—ITALY—Baseball, softball hats, caps. Macron Sport S. R. L. (I, D), 26/A Via Firenze, 40139 Bologna.

Apparel, accessories

23850 — AUSTRIA — Machine-washable rainwear for men, women, children. Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz. See listing 23282—AUSTRIA.

Fabricated textile products

23929—AUSTRIA — Terry bath towels, related terry cloth items. Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz. See listing 23282—AUSTRIA.

23962 — PARAGUAY — Automobile trimmings for resale.. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875, Asuncion.

23963—BELGIUM — Floral ribbons and tags. Dekovan, (Wholesalers of floral articles), Fabriekskaai 24, 8400 Kortrijk. Attn: Mr. Vanhandsaeme, Mgr.

23990 — AUSTRIA — Sleeping bags for campers. Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz. See listing 23282—AUSTRIA.

23990 — PARAGUAY — Automobile seat covers, for resale. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875, Asuncion.

Logging camps, logging contractors

24110—ITALY—Walnut, douglas fir, red gum, and sap gum logs. Esolegno S.P.A. (I, D), Via A. Casati 93, 20043 Arcore (Milano).

Sawmills, planing mills

24262—JAPAN—Red ash square dimension stocks, air dried, for baseball bats. Mori Trading Co., Ltd., Contact: Mr. Hiroshi Nagai, Mgr. (I), 36-5 Taito 3-Chome, Taito-Ku, Tokyo 110. Cable Grandgolfer Tokyo. WTDR in prep.

Millwork, veneer, plywood, prefabricated structural wood items

24321 — FRENCH WEST INDIES — Multi-ply plywood, Marine and exterior (mahogany), phenolic glue or better. Different thicknesses, different sizes. Specify number of panels per package. Quote prices c.i.f. Fort De France, Martinique. Requires early delivery. Contact by telex Joren 644MR. Attn: Mr. Gocar. Georges Plissonneau Duquene et Compagnie (I, D), B.P. 496 Fort De France.

24325—JAPAN—White ash veneer (approx. one-sixteenth in. thickness; approx. two in. width; approx. three ft. length); air dried, for tennis racket manufacture. Mori Trading Co., Ltd. Mr. Hiroshi Nagai, Mgr. 36-5 Taito 3-Chome, Taito-Ku, Tokyo 110. Cable Grandgolfer, Tokyo. WTDR in prep.

24332 — JAPAN — Prefabricated wood cottages, vacation homes. Shinatomo Co., Ltd. Mr. Hisaji Kondo, Mgr. of Foreign Trade (I, D), Central P.O. Box No. 262, Nagoya.

24332—JAPAN—Ready cut and prefabricated wood buildings. Chubu Service Co. (Building contractor), 8-3-534, Kakozan-Dori, Chikusaku, Nagoya 464.

Wood products

24911—DOMINICAN REP. — Creosoted poles: southern yellow pine, treated with No. 1 creosote oil to final net retention of 12 lbs. preservative per cu. ft. of wood or penta 0.60 lb. per cu. ft. Minimum retention in accordance with latest specifications of American Wood Preservers Assn. Up to 500 pieces 25 ft. class 6 or 7; up to 2000 pieces 30 ft. class 5 or 4; up to 2000 pieces 35 ft. class 4 or 3. Poles are for sale to Dominican Electric Corp. (CDE). Price will be main basis for decision. Pedro Ostreicher, Casa Alfa, C Por A (I, A, D), Aptdo 696, Santo Domingo. Telex: ITT 346-0093; RCA 326-4132, Cable: Alfa SD.

24993—CANADA—Door core: Extruded particleboard core made by Kreibaum process, up to one and three quarter ins. thick. Estimated annual volume 250,000 sq. ft. Laidlaw-Goodwood Industries, Ltd. Contact: Carl Musgrave, Purchasing Dept. (M), 50 Oak St., Weston, Ontario. Manufacturer of doors for institutions, hotels, office buildings. Wants to purchase in one or two carload quantity per

mo.. Wants to find steady source from U.S. supplier.

24993 — GERMANY — Chip board for match boxes, book match covers. Dr. H. A. Clemens, Export Consultant (I, D), D-6051 Ober-Roden, Berliner Strasse 6.

Household furniture

25143—SWEDEN — Camping furniture, metal. AB Volvo, Attn: Mr. S. Evergard, Avd. 39300 (I, D, M), Box 404, S-401 26 Goteborg. Products being sought are to be sold in Volvo showrooms throughout Sweden.

Partitions, shelving, lockers, office, store fixtures

25420—DENMARK — Supermarket, grocery store fixtures, metal. Catalogs, descriptive material requested. Dansk Kobmands-Inventar A/S, Attn: N. C. Macholm, Mgn. Dir. (I, D), 8 Glerupvej, DK-2610 Rodovre. Mr. Macholm will visit New York and Dallas May 2-8 with a group of 50 Danish supermarket and grocery store owners. Macholm would appreciate material from U.S. manufacturers prior to arrival in New York. May be contacted May 2-5 at Hotel Belmont Plaza, Lexington Ave. & 50th St., New York, N.Y. 10022.

Pulp mills, products

26112—GERMANY — Bleached sulfate pulp, bleached kraft pulp. Dr. H. A. Clemens, Export Consultant (I, D), D-6051 Ober-Roden, Berliner Strasse 6.

Paper mills, products

26210 — CAMEROON — Kraft paper in rolls: 70/72 gram wgt., up to 130 cm wide. Annual consumption 3-6 MT; for making paper bags. Correspondence in French. Societe Camerounaise de Cartonnages et de Fournitures de materiel Scolaire et de Bureau (SOCARTO) (M, I, D), B.P. 5028, Douala.

26211—GERMANY—Newsprint. Dr. H. A. Clemens, Export Consultant (I, D), D-6051 Ober-Roden, Berliner Strasse 6.

26217—BELGIUM — Pure brown kraft paper for bags. Interested in buying 2000 tons annually in substances of 75 gr. sq. m. and 90 g.s.m. in reels with outward diameter up to 100 cm. Carton Prime. P.V.B.A. (I, D), 98 Noorderlaan, 2030 Antwerp.

26217 — FIJI — Bag paper-natural kraft: widths from 10¼" to 28¼". Specifications: from 40 g.s.m. to 80 g.s.m. Weight of reels—not to exceed 200 lbs. Core diameter—3"; maximum reel diameter—24". Requirements: 300 tons per yr. Catalogs, descriptive materials requested. Pacific International airmail. Kiwi United (South Pacific) Ltd. (I, D, M), Queen's Rd., P.O. Box 427, Suva. WTDR in prep. Monthly shipments preferred. Prices to be quoted in US dollars, c.i.f. Suva. Payment: term draft 60 days after shipment.

26217—GERMANY—Kraft paper in reels for cement bags. Dr. H. A. Clemens, Export Consultant (I, D), D-6051 Ober-Roden, Berliner Strasse 6.

26219—GERMANY—Chromo paper. Dr. H. A. Clemens, Export Consultant (I, D), D-6051 Ober-Roden, Berliner Strasse 6.

Converted paper paperboard products

26420 — ETHIOPIA — Envelopes, all types, sizes and materials; catalogs, descriptive materials requested. National Stationery (I, R), Haile Selassie I St., P.O.B. 1845, Addis Ababa.

26432 — AFGHANISTAN — Potential yearly market for 30-50,000 woven plastic bags (50 kilos) exists in Afghan grain business, Local importers and grain wholesalers interested in obtaining samples of woven plastic bags for handling wheat, flour. At present jute bags being utilized at approximately 45 cents c.i.f. Kabul per bag. Request American firms supplying this item to send samples to Commercial Officer, American Embassy, Kabul, including product and shipping prices. Specifications should be similar to those required for shipping PL-480 grains, i.e. semi-permeable "breathing" type bags. As winterwheat harvest season not far off, samples should arrive in 30-45 days to allow time for ordering before harvest completed. Kobul Grain Bazaar, (I, D), Kabul.

26440—AUSTRIA — Vinyl-coated wallpaper, pre-trimmed and pre-pasted. Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021 Graz. See listing 23282—Austria.

26451—JAPAN — Blank business cards, (100 cards in plastic or carton cases), in variety of sizes, colors. Isseido Co., Ltd., Attn: Mr. Shinichiro Asahara, Prod. Mgr. (Commercial Printer) 3-8 Higashi Nakano 3-Chome, Nakano-Ku, Tokyo 164.

26491 — ETHIOPIA — Stationery, tablets, and related products. Catalogs, descriptive materials requested. National Stationery (I, R), Haile Selassie I St., P.O.B. 1845, Addis Ababa.

26492 — ETHIOPIA — Wrapping products, all types. Catalogs, descriptive materials requested. National Stationery (I, R), Haile Selassie I St., P.O.B. 1845, Addis Ababa.

26495 — ETHIOPIA — Converted paper and board products. Catalogs and descriptive materials requested. National Stationery (I, R), Haile Selassie I St., P.O.B. 1845, Addis Ababa.

Paperboard containers, boxes

26510—LIBERIA—Shipping and reshipping cartons for glass bottles; size and durability specifications will be provided suppliers after direct contact with Libchem. Liberian Chemical Industries, H. Fitzroy Williamson, Pres. (I, D, M), P.O. Box 176, Monrovia—Cable Libchem, Monrovia.

General commercial printing

27522—FRANCE — Gift wrappers and wrapping paper. Direct purchase & agency. Editions Dart Marasco, S.A. (I, D), Wer Route Des Romains 67200 Strasbourg-Koenigshoffen.

27522—NIGERIA — Gummed and pressure sensitive labels in rolls for beer bottles. Initial requirement for 2 million labels. Buyer will supply sample to interested parties. Mr. Satya Prakash, Mgn. Dir., Modern Paper Packs, Ltd. (I, D, M), 127 Aiguobasimwin Crescent, P.O. Box 291, Benin City.

Greeting card manufacturing

27711 — PORTUGAL — Greeting cards, christmas cards. Direct purchase and agency. Araujo & Sobrinho, Scrs. (I, A, D), Rua Julio Dinis, 841, Oporto.

Bookbinding industries

27822—FRANCE—Looseleaf binders. International Copy (I, R), 123 Rue du Faubourg du Temple, Paris 10. WTDR 7/72.

27822—FRANCE—Looseleaf binders & devices. Reliure-Cartonnages Serge Laskar (M, I, Exporter), B. P. 39, 13301 Marseille Cedex 3.

Industrial chemicals

28120—GERMANY—Solid soda. Dr. H. A. Clemens, Export Consultant (I, D), D-6051 Ober-Roden, Berliner Strasse 6.

28152 — AUSTRIA — Aniline dyes for textile industry. Chemie & Huette Ges.M.B.H. Dry Wall Div., Mr. M. Percic (I, A), Ebendorfer Strasse 10, A-1010 Vienna.

28160 — ITALY — Phosphorescent pigments for thermosetting and thermoplastics materials (non toxic, non radioactive, resistant to atmospheric agents). Tradex Colori, Sas (I), Via Goldoni 1, 20129 Milano.

28161—TAIWAN—Titanium dioxide for use in paint, textile, paper, plastics, and rubber industries; monthly purchase volume: 50-100 M/T; domestic suppliers please quote competitive price. Ziao Lung Enterprise, Corp. (I, M), 15, Sin Yang St., Taipei (100).

28185—LIBERIA—Isopropyl alcohol in 55 gal. drums—100 drums needed at once—continuing requirement for 50 drums per mo. Liberia Chemical Industries, H. Fitzroy Williamson, Pres. (I, D, M), P.O. Box 176, Monrovia—Cable Libchem, Monrovia.

28197 — ARGENTINA — 1,500 tons of potassium nitrate to be used as fertilizer. Ingenio Y Refineria San Martin Del Tabacal S.A. (A, Sugar Cane and Fruit Plantations, and Processing Plants), Reconquista 336, Buenos Aires.

28197—ISRAEL—1000 tons sodium triple phosphate. K. J. Deutsch, Ltd. (M, I, A), 24 Nahlat Benjamin St., P.O. Box 29868, Tel Aviv. Interested in exclusive agency.

28197 — ITALY — Heparin sodium. Product is for firm's direct use in its plant. Firm intends to make two direct purchases during the year. Farmigea S.P.A. Industria Chimica Farmaceutica (M), 2 Via Carmignani 56100 Pisa.

28199—NIGERIA—100 to 300 tons of hydrogen peroxide, 50 percent Proxima Nigeria, Ltd. (I, D, M), P.O. Box 48, Apapa, Lagos. Should be packed in strong polyethylene mauser jerry cans of approximately 65 kilograms net weight.

Synthetic materials

28213 — BOLIVIA — Polyvinyl chloride (PVC), for use in making plastic shoes, imitation leather seat covers for automobiles, furniture and raincoats. Firm uses 300 to 400 tons of PVC annually. Industrias Varias S.A. (M, I, R), Casilla 2723, La Paz. Cable Add: "INDUVAR," La Paz.

28213—ISRAEL — Thermoplastic materials for marking of roads and airstrips. A.A. Netivim, Ltd. (Contractors), 37 Shtriker St., P.O. Box 11160, Tel Aviv.

28213 — SINGAPORE — Thermoplastic resins: polyethylene—extrusion of films; polypropylene—injection moulding; polystyrene—general injection grade; acrylicstyrene—for injection purpose. Direct purchase & agency. South China (I&E) Corp. Private Ltd. (E, D), 43 N. Canal Rd., Singapore-1; Cable Add: 'Namtex'.

28214—GERMANY — Silicone resins, 20 centistoles; 10,000 tons per annum. Requests literature, prices. American Consulate General, APO New York 09078, Attn: George L. Kelly.

28214—ISRAEL — 250 tons of synthetic phenol USP crystals to be supplied in five shipments. K. J. Deutsch, Ltd. (M, I, A), 24 Nahlat Benjamin St., P. O. Box 29868, Tel Aviv.

28214—TURKEY — Caprolactone, to be used in production of nylon-6 yarn. Estimated annual requirement: 10,000 tons. Sifas Sentetik Iplik Fabrikalari A.S. (M), P.O. Box 77, Bursa. Firm currently needs 3,000 tons, may be shipped in lots of 1,000 tons. Firms should submit offers based on c.i.f. Istanbul prices preferably by cable to "Sifas-Bursa" as soon as possible.

28214 — TURKEY — Edible coumarone resins, other synthetic ingredients to be used in manufacture of chewing gum base. Annual requirements: about 100 tons; interested finding sources of supply prior to import license distribution in about two months. Interested suppliers should forward prices, technical data to firm immediately. Ciklet Mayacilik Adi Komandit Sirketi (M), Oto Sanayi Sitesi, Kayabasi Sokak, Levent, Istanbul.

28214 — TURKEY — Polyether correspondng to "Neax" of Union Carbide, or equal, and "Dezmofen 3800" of Bayer, or equal, and toluene diisocyanate (80 percent). Annual requirement: 1000 tons of both; to be used in manufacture of plastic foam. Wishes compare prices various potential suppliers before distribution of import licenses in June. Interested U.S. suppliers should submit f.o.b. prices, technical data. Duplas Kollektif Sirketi (M), Tarakcilar, Bekir Dede Cikmazi No. 8, Mahmutpasa, Istanbul.

28219—TURKEY — 300 tons polypropylene granules to be used in production plastic rope. Material to be delivered during August-September 1973. Eval Ev Aletleri Sanayi Ve Ticaret Agms. (M), Cendere Yolu, No. 53, Kagithane, Istanbul.

Drugs

28340 — CAMEROON — Pharmaceutical preparations; following active materials for manufacture of medicines: piperazine hydrate, promethazine chlorhydrate, codeine phosphate, sulfogaiocol, benzoate of sodium, lysin chlorhydrate, vitamin B12, inositol, sorbitol, salicylic acid, sulfaguanidine and products commonly used in making of medicines. Laboratoires Pharmaceutiques Camerounas PHARMACAM (M, I, D), B.P. 4002, Douala.

28342 — TURKEY — Atropine sulfate injection kit 2 MG/IC.C; in sterile ampule injectors. To be used against nerve gas poisoning. Quantity: minimum 500,000 units. Interested suppliers should quote f.o.b. and c.i.f. Istanbul prices, and indicate estimated time of proposed deliveries. Deva Holding A.S. (M), Kazevici Sokak No. 19, Beyoglu, Istanbul.

28347—ITALY—Vitamin C; trihydroxiethilrutine (vitamin P4), 15%; vitamin P; hydrosoluble vitamin D2; vitamin B12 with mannitol; 1 percent biotin (vitamin H); vitamin K; hydrosoluble vitamin A; palmitate; vitamin B1 myeline (ox brain extract); sulphamethoxypyridazine chlorothiazide clofabrate; bromophtlalic acid prenilamine base ITP NA2 (kinosine trilone inosine heparinoid L.P. 500; U.I. quinine pinebromphydrate; natural camphor; carnitine HCL; rutine NFXI and hydrosoluble alcaloid reserpine 25%, L-lysine monohydrochloride; feed grade anhydrous sorbitol dinitrate; calcium glycerophosphate powder; ATP NA4 (kadenosine triphosphate sodic salt); calcium eptagluconate oral VTP NA3 (uridone triphosphate sodic salt). Direct purchase & agency. Istituto Gentili Spa (M), 112 Via Mazzini, 56100 Pisa.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28411 — FRANCE — Soap, cleaners and toilet goods for dogs. Selmo (M, I, D), 8, Rue Montlouis, 75011 Paris. WTDR 3/73.

28445 — GERMANY — Body creams, lotions, oils suitable for massaging. David C. Lacey, American Consulate General, 7 Urbanstrasse, D-7000 Stuttgart 1.

Paints, varnishes, lacquers, enamels

28511 — ISRAEL — Paint for marking roads, airstrips. A. A. Netivim, Ltd. (Contractors), 37 Shtriker St., P.O. Box 11160, Tel Aviv.

28513—AUSTRIA — Oil-base and latex antiquing and wood-graining kits. Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021, Graz. See listing 23282—Austria.

Chemical products

28911—BELGIUM — Glues, adhesives, pastes; vegetable, animal. Chemic-As-Pen (D, I), Ave. Jean Dubrucq, 86 1020 Brussels.

28930 — AUSTRIA — Printing inks and reproduction materials—new products for printing industry. Chemie & Huette Ges.M.B.H. Dry Wall, Mr. M. Percic (I, A), Ebendorferstr. 10, A-1010 Vienna.

28993 — AUSTRALIA — Metal treating compounds. Direct purchase & agency. Hardman Chemicals Pty Ltd. Eric R. Barton, Marketing Mgr. (I, D, M), Park Rd., Seven Hills, NSW 2147. WTDR 8/72.

Petroleum refining

29110 — CAMEROON — Paraffin wax, for use in making cosmetics, perfumes. Melting point 58/60 degrees C, oil content 0.50, white color. Company purchases five MT twice annually. Societe Anonyme De Fabrication De Parfumerie Au Cameroun (SOPARCA) (M, I, D), B.P. 4065, Douala. Telegraphic Add: SOPARCA-Douala.

29110 — GERMANY — Petroleum coke, non-calcinated, delayed; total requirements: 10,000-12,000 metric tons in lots of 1,000 metric tons per mo. Requests literature, prices. American Consulate General, APO New York 09078, Attn: George L. Kelly.

Reclaimed rubber

30310 — GERMANY — Rubber, hard: pulverized (reclaimed hard rubber). Guenther Rohde, Rohstoff GmbH (I, D), 2 Hamburg 74, Werner-Siemens-Str. 95, Postfach 74 06 40.

Fabricated rubber products

30694 — PARAGUAY — Automotive mats, for resale. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875, Asuncion.

30695—AUSTRALIA—One half million 'O' ring seals meeting British Standards 1806: 1962 (UDG 621-762); additional half million in variety of other sizes also needed. Raymor Consolidated Industries (M, D), P.O. Box 11, Rockdale, NSW 22116.

30698 — FRANCE — Toys, in latex for dogs. Selmo (M, I, D), 8, Rue Montlouis, 75011 Paris. WTDR 3/73.

30698—SWEDEN—Rubberized air mattresses; inflatable rubber rowboats. AB Volvo, Attn: Mr. S. Evergard, Avd. 39300 (I, D, M), Box 404, S-401 26 Goteborg. Products being sought are to be sold in Volvo showrooms throughout Sweden.

Plastic products

30791 — ISRAEL — PVC/Melamine or polyester film for chipboard covering; yearly requirement: 150-200,000 sq. ft. Furniture Industry "Hazorea" (M), Post Hazorea 30060. Attn: Mr. Bar-Ner, mgr.

30794 — JAMAICA — Plastic collapsible bags to be used within corrugated boxes; bags should have filling, sealing and pouring devices in 5-gal. and 10-gal. capacities. Quotations in lots of 50,000-100,000 bags c.i.f. Kingston requested. Jamaica Packaging Industries Ltd., Attn: I. W. Davies (I, D, M), 214 Marcus Garvey Dr., P.O. Box 10, Kingston.

Footwear, except rubber

31417—ITALY—Baseball shoes. Wishes import these items to resell wholesale. Mancron Sport S.R.L. (I, D), 26/A Via Firenze, 40139 Bologna.

Luggage

31610—SWITZERLAND — Leather luggage, suitcases, briefcases, bags. D. Dzialoszynski (A, I), Spalenring 40, 4055 Basel. WTDR 3/73.

Leather goods

31990 — FRANCE — Flea collars for cats and dogs. Selmo (M, I, D), 8, Rue Montlouis, 75011 Paris. WTDR 3/73.

Flat glass

32114—JAPAN — Stained glass (opalescent, cathedral & antique). Zyuzyo Syozi Co., Inc. Attn: Mr. N. Okada (I, D), Sakaemachi Bldg., Nishiki 3-Chome, Nakaku, Nagoya 460.

Glass, glassware

32210—LIBERIA—2 oz. and 8 oz. glass bottles and caps for hair grooming products—monthly requirement for 2,000 doz. 2 oz. and 1,000 doz. 8 oz. of sizes Liberia Chemical Industries, H. Fitzroy Williamson, Pres. (I, D, M), P.O. Box 176, Monrovia—Cable Libchem, Monrovia.

Pottery, related products

32610 — KENYA — Vitreous and semi-vitreous plumbing fixtures, accessories and fittings: bathtubs, basins, bidets, WC pans and flush tanks (colored and white), bathroom accessories, fittings. Direct purchasers for resale. Price and delivery schedule are most important; price quotations should be f.o.b. and c.i.f. Mombasa. Mamujee Bros. Ltd. (I, D, R), P.O.B. 90600, Mombasa.

32690—BELGIUM—Floral pottery to be used by florists. Dekovan (I, wholesalers of floral articles), Fabriekskaai 24, 8500 Kortrijk. Attn: Mr. Vanhandsaeme, Mgr.

Steel mill products

33120—TURKEY—70 x 70 and 80 x 80 mm steel billets between 4.5 and 9 meters in length. Billets to be used in manufacture of window frames and greenhouse structures. Yurtcu Demir Sanayi Ve Ticaret Killektif Sirketi (I, M), Yavuz Selim Caddesi No. 5, Camdibi, Izmir. Wishes price quotations and pro forma

invoice for 20,000 metric tons of steel billets.

33123—ISRAEL—Hot rolled steel bars, sheets and strips. "Haddar" Planning & Execution Ltd. (I, A), 12 Shalma Rd., Tel Aviv.

33124 — GREECE — Hot rolled steel flat and round bars (in lengths of 6 m), steel channels and squares (in lengths of 6 m), steel plates, angles. Howard Rotavator Hellas Sa. A (M), 125 Orfeos St., P.O. Box 919, Rouf, Athens.

33124 — SAUDI ARABIA — 1000T deformed intermediate ASTM A15/305 steel bars 12 meters, unfolded 8/32 mm and 850 tons 36 mm; 2000T plain mild steel 12 meters folded 6/20 mm. Best delivery f.o.b. indicating possible actual ocean freight both charter party and conference terms. Rolaco Trading & Contracting (I, D, R), P.O. Box 222, Jidda. Requests cable replies to: Rolaco, Jidda.

33125—BOLIVIA—Wire, for fabrication of nails, BWG numbers 1 through 19. Correspondence in Spanish. Bolivia's only producer of nails. Industrias "Osa" Limitada (M, I, D), Casilla 663, Cochabamba. Cable "OSO."

33125 — MEXICO — High carbon steel wire in variety of gauges from 1/2 to 18 (SWG) to be used in manufacture of industrial screens. Expects to purchase approx. 150 tons per yr. Galvanized steel wire in gauges 6 to 20 (SWG) to be used in manufacture of chain link fencing and wire belting. Needs 450 tons per yr.; desires to purchase f.o.b. plant. First order for 150 tons needed as soon as possible. Requests samples, price quotations, etc., sent to Attn: Sr. Ruben Coronado. Price, quality, speed, regularity of delivery important factors in purchase decision, which buyer expects to make in two to three months. Firm one of three largest manufacturers of galvanized chain link fence. Centromalla, S.A. (M), B. Reyes Nte. 2720 Monterrey, Nuevo Leon.

33127—COLOMBIA—20,000 metric tons cold rolled steel sheet for water pipe manufacture. To be supplied in several shipments, first shipment to be delivered in July 1973. Empresa Siderurgica S.A. (Simesa) (M), Avenida de los Industriales No. 17-226 Apartado Aereo P.O. Box 955 Medellin.

33127—COLOMBIA—40,000 metric tons cold rolled steel sheet in coils (loamcoil) for tinplate manufacture; to be supplied in several shipments, first shipment to be delivered July 1973. Hojalata y Laminados S.A. (M), Avenida de los Industriales No. 17-226, Apartado Aereo P.O. Box 955 Medellin. WTDR in prep.

33127—MALAYSIA — Cold rolled steel sheets any dimensions not less than 2 ft. x 4 ft. following specifications: SWG 14—10 tons; SWG 16—15 tons; SWG 18—10 tons. Quantity per shipment 35 tons. Price quoted net c.i.f. Port Klang long/metric ton, supplier advise validity of quotation, shipment date, terms of payment, minimum order entertained. Metal Industries of Malaysia, SDN. BHD. (M), Lot 6 Road 19/1A, P.O. Box 27, Petaling, Jaya, Selangor. Cable: Delight, Kuala Lumpur. WTDR in prep.

33127 — MALAYSIA — Stainless steel sheets AISI304L No. 4 finish on one side and rough ground on other side; side with No. 4 finish to be coated with transparent PVC (non transparent PVC also acceptable) following specifications: 1 long ton SWG 16 x 4 ft. wide x 9 ft. long; 1 long ton SWG 18 x 4 ft. wide x 9 ft. long; 1 long ton SWG 20 x 3 ft. wide x 9 ft. long. Price quoted net c.i.f. Port Klang long/metric ton. Suppliers advise validity of quotation, shipment date, terms of payment, minimum order entertained. George Kent (Malaysia) BHD. (I, A, M), No. 2 Lorong 19/1A, P.O. Box 1100, Jalan Semangat, Petaling Jaya, Selangor. Cable address: Kentmeters, Kuala Lumpur. Telex: KL TX 365, Attn: Mr. R. A. Aziz. WTDR 12/72.

33127 — MALAYSIA — Stainless steel sheets AISI 304 L No. 4 finish on one side and rough ground on other side; side with No. 4 finish to be coated with transparent PVC (non transparent PVC also acceptable) following specifications: SWG 16 x 3 ft. wide coil 4 long tons; SWG 18 x 3 ft. wide coil 4 long tons. Unit coil weight must not exceed two tons. Price quoted net c&f Port Klang in long/metric tons. Suppliers advise validity of quotation, shipment date, terms of payment, minimum order. George Kent (Malaysia) Bhd., Attn: R. A. Aziz (I, A, M), No. 2 Lorong 19/1A, Petaling Jaya, Selangor. Cable address: Kentmeters, Kuala Lumpur. Telex: KL TX 365. WTDR 12/72.

33128—ISRAEL—Cold drawn steel bars, sheets and strips. "Haddar" Planning & Execution Ltd. (I, A), 12 Shalma Rd., Tel Aviv. Interested in exclusive agency at later date.

33128 — KUWAIT — Mild steel bars; amount needed 8600 metric tons, packed in 100 kilo bundles. Al-Muhalab Contracting & Trading Co. (I, D, Contractor), P.O. Box 3245 Safat, Kuwait City; Cable: Namashi; Attn: Abdul Wahab Saleh Al-Namash. Requests cabled offers on C and F basis, Kuwait.

33155—AUSTRALIA—Dependable source of 302 stainless steel coil for cold heading purposes; diameters .113 to .305; ten to twelve tons per mo. Australian Screw Co. Pty Ltd., Attn: J. Johnson Gen. Mgr. 12 Hollywood Dr., Lansdale, NSW 2166.

33167 — TURKEY — Cold rolled steel sheets measuring 1.20 by 2.40; meters and having thickness of 0.50 to 1.5 millimeters. Panimpex (I, M, D), Necati Bey Bulvari, 1337 Sokak No. 12, Izmir. WTDR 2/73. Wishes to import 2,500 tons. Desires price quotations and earliest possible delivery date.

33176—GERMANY—Boiler tubing, seamless steel, according to German Standard DIN 17 175, Grade No. III; cold water test pressure 80 ATUE unworked; surface ultrasonic tested, to be inspected by Technischer Ueberwachungsverein (TUEV) or another official inspector named by supplier; permissable tolerance:—1 per cent for inner diameter, 0 to plus 25 percent minimum wall thickness: production length of tubes is to be stated. Requirements are: (German) grade 14 MOV 63—93 meters—720 mm ID x 23,3 mm minimum wall thickness; 394 meters—520 mm ID x 16,8 mm minimum wall thickness; 248 meters—510 mm ID x 16,5 mm minimum wall thickness; 105 meters—600 mm ID x 19,4 mm minimum wall thickness; or 105 meters—622 mm x 22,5 mm wall thickness; (German) grade 15 MO 3—50 meters—800 mm ID x 20 mm wall thickness; 82 meters—450 mm x 10 mm minimum wall thickness: (German) grade 10CRMO 910—2 meters—1050 mm ID x 47 mm wall thickness; 23 meters—720 mm ID x 32 mm wall thickness. Paul Kahle Rohrleitungsbau GmbH: Contact: Wilhelm Kruell (I, D, M), 4 Dusseldorf, Koelner Strasse 170, Postfach 4620. WTDR 12/72. Hopes to procure several million DM worth of tubing.

Rolling, drawing, extruding of nonferrous metals

33510 — TURKEY — Copper tubing between 0.625 in. and 1.5 in. in diameter. Eklo Turan Muskara Ve Hayrettin Yorgancioglu Kollektif Sirketi (M), Gazi Bulvari No. 87, Izmir. Desires price quotations for approximately three tons of copper tubing suitable for manufacture of cooling coils, evaporators.

33512 — TURKEY — Copper tubing, refrigeration quality, in coils or lengths to be used in production of condensers, evaporators; annual requirement: about 50 tons. Direct purchase & agency. Akimex Killenktif Sirketi (A), Tarlabasi Caddesi, Mis Sokak 40/1, Beyoglu, Istanbul.

33512 — TURKEY — Brass billets as per MS 58 standard used in drawing of rods. Approx. annual requirement: 2000 tons. Nesim Salah (A), Eski Gumruk Sokak, Kurkcubasi Han No. 21, Istanbul.

33512 — TURKEY — MS 58DIN 17660 type brass rods suitable for manufacture of plumbing fixtures. Diameter 130 mm., length between 30, 80 C. Firm requires 500 tons brass rods on urgent basis (within 30 days) and total of 1000 tons on annual basis. Pro forma invoice requested. Purchase decision will be based primarily on delivery speed and secondarily on price. Valf Sanayi Anonim Sirketi (M), Organize Sanayii Bolgesi, Manisa.

33521 — KENYA — Extruded copper and copper-base alloy mill products: pipe and tube plumbing. Direct purchases for resale. Price and delivery schedule most important; price quotations should be f.o.b. and c.i.f. Mombasa. Mamujee Bros. Ltd. (I, D, R), P.O.B 90600, Mombasa

33523 — AUSTRIA — Aluminum foil, thickness 0.009 mm, soft, high-burnished, silver, coated with colorless lacquer; in reels of a width from 800-1,000mm, on steel cores with an inside diameter of 70mm; monthly requirement: 30-50 m.t.; aluminum foil same quality as above but not lacquered; monthly requirement: 60-80 m.t. Seeks agency arrangement on commission basis. Sells to processors of aluminum foil; e.g., printers, laminators, etc. Experienced in aluminum foil business with extensive market contacts in Austria, Middle East. Handelsagentur Machilek, Attn: Mr. Brantner, (I, A, D), Riemenschneidergasse 30, A-1222 Vienna.

33523 — TURKEY — Aluminum foil with thickness between 0.15 and 0.20 millimeters and with width of 210 millimeters. Eklo Turan Muskara Ve Hayrettin Yorgancioglur Kollektif Sirketi (M), Gazi Bulvari No. 87, Izmir. Manufactures cooling coils and evaporators, desires price quotations, descriptive material on aluminum foil.

33579 — PARAGUAY — Automotive wire and cable for resale. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875, Asuncion.

Cutlery, hand tools, general hardware

34231 — BELGIUM — Tools, mechanics, hand service; pliers. Menouquin S.C. (I, A, D), Zoning Industriel, 1400, Nivelles.

34231 — PARAGUAY — Automotive

mechanic's hand service tools; for resale. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875, Asuncion.

34232 — BELGIUM — Drills, edge tool, hand operated. Menouquin S.C. (I, A, D), Zoning Industrial, 1400 Nivelles.

34291 — FRANCE — Pleasure boating hardware. Sucab (D, I, exporter), 69 Blvd. Capitaine-Ceze, 13308 Marseille.

34291 — PARAGUAY — Motor vehicle hardware, for resale. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875, Asuncion.

34293—AUSTRIA—Insulated outing jugs (1-2 gal. capacity). Modenmueller, Attn: Paul Neuburger (I, R), Wienerstrasse 286, A-8021 Graz. See listing 23282—AUSTRIA.

Heating apparatus, plumbing fixtures

34330—GERMANY—Heating equipment: cast iron heating boilers, radiators and convectors, steel radiators, steel heating boilers. Walter Hoenerloh (I, A, D), 2000 Hamburg, 50, Gr. Brunnestrasse 120.

Fabricated structural metal products

34411 — GREECE — Commercial formed, structural, and flat steel: ST 33 to ST 37, din 17100, edges rounded. A) Equal angles 16mm x 16mm x 3mm thickness; B) unequal angles 16mm x 16mm x 3mm thickness; C) equal angles 100mm x 100mm x 10mm thickness; D) equal angles 20mm x 20mm x 3mm thickness up to 60mm x 60mm x y 6mm thickness. E) Flats 10mm x 3mm up to 180mm x 25mm. F) Squares 6mm diameter up to 100mm (diameters 6mm to 35mm should be suitable for concrete reinforcing). H) Channels 30 x 15 x 3 and 4mm; channels 40 x 20 x 4 and 5mm; channels 40 x 35 x 4 and 5mm; channels 50 x 25 x 5 and 6mm; channels 50 x 38 x 5 and 6mm; channels 60 x 30 x 6 and 6.5mm; channels 65 x 42 x 5.5 and 6mm. I) Standard joists I PN 80mm to 200mm; J) standard channels U PN 80mm up to 200mm; K) joists I PE 80mm up to 200mm. L) American sections 4 inc x 2⅝ inc; 5 inc x 3 inc; 6 inc x 3⅜ inc; 7 x 3⅝ inc; 8 x 4 inc. M) American channels 4 inc x 1⅝ inc; 5 inc x 1¾ inc; 6 inc x 2 inc; 7 inc x 2½ inc; 8 inc x 2½ inc. N) American parallel shapes 4 inc x 4 inc; 5 inc x 5 inc; 6 inc x 6 inc; 8 inc x 5¼ inc; 8 inc x 6½ inc; 8 inc x 8 inc. O) Window sections series of 32mm and 36mm II steel sheets ST 33 to SST 37. A) Hot-rolled 0.50mm to 16mm thickness; sizes: 1000mm x 2000mm, 1.250mm x 2.500mm, 1.500mm x 3000mm to 6.000mm, 2.000mm x 3.000mm to 6.000mm; B) cold-rolled, singled, pickled, oiled (SPO) 0.50 thickness to 3mm; sizes: 1000mm x 2000mm; 1000mm x 3000mm; 1250mm x 2500mm; 1250mm x 3000mm; 1500mm x 3000mm. C) Checkered plates 2.5mm net thickness 3mm net thickness; 4mm net thickness; 5mm net thickness; 6mm net thickness. First yr. purchase approx. $650,000 or 3,000 tons depending on quotations f.o.b. U.S. and c.i.f. Thessaloniki plus insurance. All merchandise for resale locally. C. Tsallis & Co. (I, D), 6 Orpanidou St., Thessaloniki.

34411 — KENYA — Fabricated structural steel for building: angles, channels, checkered plates, flats, hollow sections, josts plates, shiftings and universal beams. Direct purchases for resale. Estimated annual requirements $400,000 to $500,000; price quotations f.o.b. and c.i.f. Mombasa; price and delivery schedule most important factors. Mamujee Bros. Ltd. (I, D, R), P.O.B. 90600, Mombasa.

Metal stampings

34616 — IRELAND — Pilfer proof bottle closures and screw caps. Hugh Jordan & Co. Ltd. (I, A, M), St. Mark's Works, Lombard St., E. Westland Row, Dublin 2.

Coating, engraving, allied services

34790 — AUSTRALIA — Metal painting (enamelling, lacquering, varnish) for the trade. Direct purchase & agency. Hardman Chemicals Pty Ltd. Eric R. Barton, Mktng. Mgr. (I, D, M), Park Rd., Seven Hills, NSW 2147.

Fabricated metal products

34946 — SWEDEN — Valves made of forged brass, i.e. gate valves, globe valves. Thermoscan Varme AB (I, A, M), Box 4030, S-203 11 Malmo. WTDR 3/73.

Engines, turbines

35192 — AUSTRALIA — Heavy duty direct current traction motors 10-30 hp for use in underground mining equipment. E. M. Baldwin & Sons (Locomotives) Pty. Ltd., J. H. Pocock (M), PO Box 71, Castle Hill, NSW 2154.

Farm machinery

35220 — SWITZERLAND — Feed grain popping machine for cattle feed production. Attn: Mr. Graber (M), 6210 Sursee. Important manufacturer of animal feed for agricultural use; wants to buy popping machine for own use.

35227 — AUSTRALIA — Power lawn mowers. Direct purchase & agency. Bennett Honda Pty. Ltd., Brian Vinson, Gen. Sales Mgr. (I, D, R, M), 2 Ralph St., Alexandria, NSW 2015. Mr. Brian Vinson travelling to U.S. latter part of May.

Construction, mining, materials handling machinery, equipment

35351—KOREA—Ski lifts (rope-tow, T-bar and disc) for ski resort at Tae Kwal Ryong, Kangwon-do, Korea. Quotations, specifications, catalogs requested. Construction & Management Consultants (design and construction—resort development), I.P.O. Box 2251, Seoul. Pres.: Rodger I. Eddy.

35318 — KOREA — Snow compactors for ski resort. Quotations/specifications/catalogs requested. Construction & Management Consultants (design and construction—resort development), I.P.O. Box 2251, Seoul. Pres.: Rodger I. Eddy.

Metalworking machinery

35410 — TURKEY — Automatic machinery for production of union parts for use with iron pipes; detailed information for each specific measurement obtainable from firm. Prices, catalogs should be forwarded within next three months. Izsal Dokum Sanayi A.S. (M), Topkapi, Maltepe Caddesi 21, Istanbul.

35411 — AUSTRIA — Numerically controlled, fully automatic boring machines for production of pumps, compressors. Descriptions, prices requested. Ochsner & Sohn, Ges. MbH & Co. K. G. (I, D, M), Oberfeldstrasse 24, P.O. Box 60, A-4024 Linz.

35412 — AUSTRIA — Numerically controlled, fully automatic drilling machines for production of pumps and compressors. Descriptions, prices requested. Ochsner & Sohn, Ges. MbH & Co. K. G. (I, D, M), Oberfeldstrasse 24, P.O. Box 60, A-4024 Linz.

35415 — AUSTRIA — Numerically controlled, fully automatic lathes for production of pumps, compressors. Descriptions, prices requested. Ochsner & Sohn, Ges. MbH & Co. K. G. (I, D, M), Oberfeldstrasse 24, P.O. Box 60, A-4024, Linz.

35415 — GERMANY — Automatic metal working lathes for cutting of small metal automobile parts with a drive power from 5-10 kw. Direktor Brunn, Lemforder Metallwaren A.G. (M), Postfach 20, 2844 Lemforde, Germany.

35416 — AUSTRIA — Numerically controlled, fully automatic milling machines for production of pumps, compressors. Descriptions, prices requested. Ochsner & Sohn, Ges. MbH & Co. K. G. (I, D, M), Oberfeldstrasse 24, P.O. Box 60, A-4024 Linz.

35418 — BELGIUM — Drilling machines, metal-cutting, home workshops. Menouquin S.C. (I, A, D), Zoning Industriel, 1400 Nivelles.

35418—TURKEY—Slotting machinery to be used in the manufacture of iron or brass screws; screw diameters: ⅛"-5/32". Lengths: 2-6mm heads of screws; plain oval or slotted; capacity: 200-500 screws per min. Types of machinery required for purpose will also include thread rolling and heading units. Alternatively, suppliers may quote single machine which, if possible, can perform three processes: i.e., thread rolling, heading and slotting simultaneously. Suppliers should forward catalogs, pro formas in six copies for each machine and indicate proposed deliveries. Screws produced will be used in various electrical switches, plugs and outlets manufactured by the firm. Kupa Sanayi Ve Ticaret A.S. (M), Yanikkapi Sokak, Suma Han No. 210, Karakoy, Istanbul.

35418 — TURKEY — Pipe threading and tapping machines for R⅜"-R2" and R2"-4" malleable iron fittings; 4000 tons fittings to be produced in one year. Prices, catalogs should be forwarded within next three months. Izsal Dokum Sanayi A.S. (M), Topkapi, Malzepe Caddesi 21, Istanbul.

35420 — BRAZIL — All machinery necessary to increase capacity of 150,000 tons a year scrap metal factory to 300,000 tons a year, including a scrap metal furnace and all machinery necessary to produce wire rebar, barbed wire, nails, and screws. Siderurgica Riograndense S/A Grupo Gerdau (M), Av. Farrapos, 1811, Porto Alegre, Rio Grande Do Sul.

35422 — FRANCE — Firm owned by large Renault automobile company; produces specialized steels for automotive industry. It is leader in France for developing continuous casting process and has country's largest cold forge operation. The company already employs large American cold forging presses and is considering buying more of such equipment. Mr. Sellier, Dir., Societe Aciers Fins De Lest (M), 57 Hagondange.

35423—TURKEY—Machinery for manufacturing iron or brass screws; screw diameters: ⅛"-5/32", lengths, 2-6mm heads of screws; plain oval or slotted; capacity: 200-500 screws per min. Machinery consisting of thread rolling and heading and slotting units, or one integral machine, if available, to perform all three operations. Suppliers should forward catalogs, proformas in six copies for each machine; also indicate estimated time of proposed deliveries. Screws produced will be used in various electrical switches, plugs and

outlets manufactured by the firm. Kupa Sanayi Ve Ticaret A.S. (M), Yanikkapi Sokak, Suma Han No. 210, Karakoy, Istanbul.

35481 — INDIA — Machinery, equipment and component parts to manufacture mill steel cold rolled strips and narrow strips. Annual capacity 25,000 m.t. Brief description follows: one 4-high cold rolling reversing mill to roll mild steel of initial thickness 4mm; final 0.33mm. Nearest size of mill 150mm diameter x 450mm diameter x 450mm barrel length. Production for eight hrs. with average size 3mm to 0.45mm with 70 percent efficiency; 15 m.t. One non-reversing cold roll mill to roll mild steel of initial thickness 3mm to 4mm, final 0.3mm. Size of mill 145mm diameter x 360mm diameter x 300mm barrel length. Production for eight hrs. with average size 3mm to 0.45mm to 70 percent efficiency; 8 m.t. One 2 hi skin pass cold rolling mill, conventional type, D/C drive with all controlling arrangements. Size of mill 250mm diameter x 300mm barrel length; One gang slitting machine for mild steel and medium carbon steel. Size of coil: weight 15 m.t.; width 22500mm; thickness 3mm to 4mm. Eight hrs. output: 20 m.t.; One roll grinding machine with camber attachment for alley steel forged rolls, hardened and tempered. Size of machine 600mm x 2500mm; 500mm x 1500mm; Three ammonia crackers or gas generators, capacity 50 M3/hr., pressure 0.5 to 5 lbs. per sq. in. gauge; One slitting machine for mild steel and medium carbon steel, size one quarter in. to one in. width, 1mm to 0.30mm. thick, capacity for 8 hrs.: 12 m.t.; One automatic wrapping machine for wrapping with alkathene Hessian cloth cold rolled strips from 10 kgs. to 0 kgs. coil. Orient Steel & Wire Industries Ltd. (M), 2 Brabourne Rd., Calcutta 700001, West Bengal. WTDR in prep. Desires price quotations c.i.f. Calcutta. Catalogs of equipment offered by May 31.

35482—BELGIUM—Tools, hand, power-driven, parts, attachments. Menouquin S.C. (I, A, D), Zoning Industriel, 1400 Nivelles.

35483 — NIGERIA — Welding equipment and accessories; moderately priced. Quotations c.i.f. Lagos as well as illustrated brochures. N. A. Ibeh, Mgn. Dir., Partners for Progress Ltd. (I, D), 114 (plot 151), Bode Thomas St., Surulere, P.O.B. 8264, Lagos.

35485—BELGIUM—Cartridges for cartridge fixing tools: standard dimensions: 6 x 3 x 10mm; 6 x 3 x 11mm; 6 x 3 x 14mm; 6 x 3 x 16mm. Diamant Boart S.A. (M), Ave. Du Pont de Luttre 74, 1190—Brussels.

34585 — JAPAN — Non-slip type continuous four-head stainless steel (mostly AISI 304 grade) wire drawing equipment; available for two-head drawing; rotating die for first head and fourth head; feed speed, 80-150 meters per min., dry lubrication. Diameter of take-up blocks, 650mm of both 2-head and 4-head drawing; weight of coils, 500 kilograms; rod diameters, 8.3-5.5mm; wire diameters, six to three milimeters. Power source, 200 volts 50 cycles. Requires one rod pointing equipment, one AC-DC current convertion system essential for above equipment. Nippon Metal Industry Co., Ltd. (M), New Tokyo Bldg., 4 Yuraku-Cho 2-Chome, Chiyoda-Ku, Tokyo 100.

Special industry machinery

35520 — TURKEY — Machinery for production of cotton underwear and underwear fabric. Firm has no experience in underwear manufacture but presently manufactures high quality fabric for export to Western Europe and engaged in joint venture with German firm to produce ready-made clothing for export. Desires full descriptive materials, price quotations, and info on necessary plant lay-out and type and quantity of machinery needed. Basis for purchase decision will ultimately be price, terms, and service. Timely response essential as firm manager scheduled to visit Europe in early May to seek info there. Tac Sanayi Ve Ticaret Anonim Sirketi (M), Mimar Kemalettin Caddesi 43, Izmir 1-6.

35521—ZAMBIA—Manufacturer of cotton fiber and textiles; wishes double production capacity by 1974 in processing department. Total cost of expansion expected to reach $2.5 million; Exim Bank loan might be required. Requirements for processing department are, shearing machine; pad roll (pre-bleaching); singeing machine; mercer; drying machine; dyeing machine; hot flue; printing machine; open soaper; steamer; stenter; sanforizer and banking. Preference will be given to U.S. firm in position to supply entire machinery requirements of present expansion. Attn: L. B. Cheelo, Kafue Textiles Zambia Ltd. (I, D, M), P.O. Box 132, Kafue.

35532 — BELGIUM — Drilling machines, wood-working, for home workshops. Menouquin S.C. (I, A, D), Zoning Industriel, 1400 Nivelles.

35540 — CAMEROON — Paper bag making machine, quantity: one for making cement sacks including all steps, cutting, trimming and stitching from kraft paper rolls not more than 120 cms. wide. Company also interested in other bag and envelope making machinery. Societe Camerounaise De Cartonnages Et De Fournitures De Materiel Scolaire et De Bureau (SOCARTO) (M, I, D), B.P. 5028, Douala.

35540 — ECUADOR — One equipment, complete to manufacture multiwall paper bags for packaging all kinds of agricultural products. Above equipment intended for use by IPSSA which has sales service throughout Ecuador. Industria Proveedora De Sacos S.A. c/o Carlos Ponton-Avila, Mgr. (M), P.O. Box 1147, Guayaquil.

Special Action

Each of the following direct sales trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

22000 — AUSTRALIA — Fabrics for men's outerwear for end use of suitings and sportswear with blend compositions — polyester/viscose, polyester / linen, polyester / cotton. Fashion colors—wool worsted/polyester piece dyed and yarn dyed, plain and fancy weaves. Denims and velveteens for men's, women's outerwear. Bedspreads, curtaining fabrics. S. W. Church & Co. Pty. Ltd. (I, A), 328 Flinders St., Melbourne, Victoria 3000.

35540 — NIGERIA — Complete corrugated board carton machinery for die cutting, stapling, gluing and printing. Capacity required for minimum of one million beer cartons per yr. Mr. Satya Prakash, Mng. Dir., Modern Paper Packs Ltd. (I, D, M), 127 Aiguobasimwin Crescent, P.O. Box 291, Benin City.

35592 — TURKEY — Automatic molding machinery for producing three tons net per hr. of 1/2"-2" malleable iron pipe fittings; annual capacity 4000 tons. Prices, catalogs should be forwarded within next three months. Izsal Dokum Sanayi A.S. (M), Topkapi, Maltepe Caddesi 21, Istanbul.

35593—INDIA—One complete PVC/PE extrusion line with 150mm extruder with following synchronized components: (A) one vertical screw pay-off stand, (B) one in-feed caterpillar type capstan, (C) cable guide and measuring device, (D) one 150mm extruder with an output rate of over 500 kgs. per hr., (E) extruder points, (G) water cooling trough, (H) spark test unit, (I) cable length measuring wheel, (J) vacuum blower unit, (K) take-up caterpillar capstan, (L) take-up stand and (M) central control consoles. Foregoing balancing equipment required for cable plant. Orient Power Cable, Ltd. (M), Narang House, 34 Chatrapati Shivaji Maharaj Rd., Bombay 1.

35593—NIGERIA—Machinery to convert sheets of polyethylene film into bags of 51" x 2" dimensions. Capacity required for minimum of 28 million bags per yr. Mr. Satya Prakash, Mng. Dir., Modern Paper Packs Ltd. (I, D, M), 127 Aiguobasimwin Crescent, P.O. Box 291, Benin City.

35593 — SINGAPORE — Plastics-working machinery & equipment: PVC leather cloth or calender machine—1 unit; PVC film sheeting or synthetic leather coating machine—1 unit; plastic granulator—1 unit. Tai On Loong & Co. (Priv.) Ltd. (I, E, M), 34 South Bridge Rd., Singapore-1.

35593 — TURKEY — Twin and four-screw PVC extruder process machines used to produce plastic pipes; machinery sales this project approx. $2 million. Injection molding machinery coupled with forming unit and single screw extruder; machinery purchase approx. $1 million. Plastic forms for polypropylene molding for plastic bottle cases to hold beer and soft drinks. Wishes to purchase one or two molds to begin operation. Anticipates demand for cases will require additional large quantity of forms, since local firms use wooden crates which are expensive due to scarcity of wood in Turkey. Planning $6.5 million expansion of plastic products plant. Firm is pioneer plastic manufacturer in Turkey, with almost unlimited domestic market. Pilsa Plastic Corp., subsidiary Haci Omer Sabanci S.A., Sevket Sananci, Vice Chairman or Tohan Gockay, gen. mgr. (M, I, D, R), Karsiyaka, Ceyhan Yolu, Adana.

35595 — IRELAND — Zinc plating and stress relieving plant for masonry nails. Capacity: 5 tons in 30 to 40 hrs., working approx. 6 hrs. per day, or alternatively an automatic plant. Machinery urgently required to set up manufacturing plant. Abrasive Products & Equipment Ltd. (M), Site C, Cookstown Industrial Estate, Belgard Rd., Tallaght, Co. Dublin.

35595—ISRAEL—Machinery for rebuild-

ing black-and-white television picture tubes. Capacity up to 40 per day. Electra (Israel) Ltd. (I, A, M), Electronic Div., 34 Petah Tikva Rd., P.O. Box 2180, Tel Aviv. WTDR 9/72. Complete installation desired, probably with know-how; preferably on a turn-key basis.

35595—KENYA—Nit picking machinery to be used to clean hair brushes. Finlay Industries Ltd. (M), P.O. Box 72634, Nairobi. Firm manufacturers hair brushes from animal bristles. Reports U.S. Food & Drug Admin. requires hair brushes made from animal bristles be nit free as well as sterilized.

35595 — PORTUGAL — High performance machinery for production of surgical dressings, gauze pads, gauze sponges, swabs. Remodeling plant to meet increasing demand for high quality products. Bastos Viegas & Ca. Ltd. (M), Praca da Batalha, 119, Oporto.

General industrial machinery

35642 — GERMANY — Air purification equipment. Direct purchase & agency. Depollution GmbH (I, A, D), D-6050 Offenbach/Main, Schreberstrasse 10.

35660 — GERMANY — Mechanical power transmission equipment firm, which is distributor for power chain drives, interested in importing power transmission and mechancal handling equipment, would like to receive offers that fall into this category and may add to firm's product line. Products are for resale. Heitmann & Brunn GmbH. (I, A, D), 2 Hamburg 1, Gerhart-Hauptmann-Platz 14.

35673 — ISRAEL — Hardening furnaces for steel heat treatment with controlled atmosphere. "Haddar" Planning & Execution Ltd. (I, A), 12 Shalma Rd., Tel Aviv. Interested in exclusive agency at later date.

35690 — BOLIVIA — Complete plant to produce aerosols. Firm also seeks license for line of products to be sold in aerosol containers (e.g. cosmetics or paints). Wants technical assistance. J. Claros y Cia. (Customs Agent), Casilla 1629, Cochabamba.

35690 — BOLIVIA — Machinery to produce asbestos brake linings. Technical assistance desired. J. Claros Y Cia. (Customs Agent), Casilla 1629, Cochabamba.

35690 — NETHERLANDS — Automatic fire sprinkler equipment. Exclusive sales representations requested. A. Merkx Verwarmings- En Stooktechnisch Bedrijf B.V. (I, A, D, M), P.O. Box 104, 50 Lam. Majoorlaan, Bussum. WTDR 4/73.

Office, computing, accounting machines

35720 — PORTUGAL — Typewriters. Direct purchase and agency. Araujo & Sobrinho, Scrs. (I, A, D), Rua Julio Dinis, 841, Oporto.

35741 — PORTUGAL — Desk calculators, low cost pocket types and programmable. Direct purchase and agency. Araujo & Sobrinho, Scrs. (I, A, D), Rua Julio Dinis, 841, Oporto.

35741 — PORTUGAL — Computing and accounting machines. Araujo & Sobrinho, Scrs. (I, A, D), Rua Julio Dinis, 841, Oporto.

35741 — ETHIOPIA — Computing and accounting machines, including cash registers. Catalogs and descriptive materials requested. National Stationery (I, R), Haile Selassie I St., P.O.B. 1845, Addis Ababa.

35791 — PORTUGAL — Folding machines, other types of machines for handling, addressing, mailing. Direct purchase & agency. Araujo & Sobrinho, Scrs. (I, A, D), Rua Julio Dinis, 841, Oporto.

Service industry machinery

35811 — FRANCE — Coin-operated vending machines. Direct purchase & agency. ERDA (I, R), 12 Rue Du Rotoir, 78610 Le Perray-En-Yvelines.

35820 — CAMEROON — Dry cleaning plant equipment. Needs following urgently: One top loading centrifugal dryer, capacity approximately 25 kilos; one pressing machine for draperies, approximately 2.1 meters wide. Company desires rugged, high quality, industrial equipment; local current 220 volt/50 cycle. French language specifications preferred. Company is one of only two large dry cleaning plants in Douala. Cam-Pressing (R, I), B.P. 1453, Douala.

35860 — BELGIUM — Caulking guns, Menouquin S.C. (I, A, D), Zoning Industriel, 1400 Nivelles.

35892 — AUSTRIA — Water purification equipment; apparatus processing polluted water into drinking water; used by households, campers, military, etc. Chemie and Huette Ges.M.B.H. Dry Wall Div., Mr. M. Percic (I, A), Ebendorferstrasse 10, A-1010 Vienna.

35892 — GERMANY — Water treatment purifying plants, shredders. Direct purchase & agency. Depollution GmbH (I, A, D), D-6050 Offenbach/Main, Schreberstrasse 10.

35892 — GERMANY — Water treatment equipment—osmosis and reverse osmosis systems. Mr. David C. Lacey, American Consulate General, 7 Urbanstrasse, D-7000 Stuttgart 1.

Household appliances

36311 — FRANCE — Plate heaters on rolling carts. Frantel (I, A), 78, Rue Olivier De Serres, 75015 Paris.

36321 — CYPRUS — Household refrigerators, operated on 220/250 volts-50 cycles. Catalogs, descriptive material in English requested. Cyprus market small and competitive. Quote c.i.f. Cyprus. Direct purchase & agency. George S. Galatariotis & Sons Ltd. (I, A, D, R), 172 St. Andrew St., P.O. Box 19, Limassol.

36331 — CYPRUS — Household mechanical washing machines, dryers, and washer-dryer-combinations, operated on 220-250 volts-50 cycles. Catalogs, descriptive material requested. Quote c.i.f. Cyprus. Direct purchase & agency. George S. Galatariotis & Sons Ltd. (I, A, D, R), 172 St. Andrew St., P.O. Box 19, Limassol.

36360 — BOLIVIA — Complete plant and machinery to produce men's suits; wants technical assistance. Financing up to $30,000 from Banco Del Estado. Correspondence in Spanish. Sasteria Zanbrana De Antonio Zambrana Tailor, (I, R), Casilla 2636, La Paz.

Electric lighting, wiring equipment

36425—KOREA—Outdoor lighting equipment for ski resort. Quotations, specifications, catalogs requested. Construction & Management Consultants (design and construction-resort development). I.P.O. Box 2251, Seoul. Pres.: Rodger I. Eddy.

Radio, television receiving sets

36510 — NIGERIA — Cassette/cartridge tape player/recorder combinations for home and automobile use; radios, radio/cassette tape recorders, MW/SW 1-4 bands, AC/DC, 220 volt, 50 HZ, English type electric plug. C.i.f. quotations, Lagos. Mr. N. A. Ibeh (I, D), can be contacted at his U.S. address: Partners for Progress Ltd., P.O. Box 462, 52 Shetland Lane, Willingboro, New Jersey 08046.

36511 — CYPRUS — Household, automobile radios, radio-phonograph combinations; operate on 220/250 volts-50 cycles. Catalogs, descriptive material requested. Quote c.i.f. Cyprus. Direct purchase & agency. George S. Galatariotis & Sons Ltd. (I, A, D, R), 172 St. Andrew St., P.O. Box 19 Limassol.

36511 — ECUADOR — Parts for household and automobile radios, and for radio-phonograph combinations. Seeks distributorship arrangement. T. Traverso C. (I, A, D, R), P.O. Box 1332, Guayaquil.

36512 — CYPRUS — Household television receivers, including television combinations; European compatible, operated on 220/250 volts-50 cycles. Catalogs, descriptive material requested. Cyprus market small and competitive. Quote c.i.f. Cyprus. Direct purchase & agency. George S. Galatariotis & Sons Ltd. (I, A, D, R), 172 St. Andrew St., P.O. Box 19, Limassol.

36512 — ECUADOR — Parts for household television receivers and for television combinations. Seeks distributorship arrangement; has sales service throughout Ecuador. T. Traverso C. (I, A, D, R), P.O. Box 1332, Guayaquil.

36514 — CYPRUS — Recorders, audio amplifiers, phonographs, tuners, speaker system, other audio equipment, accessories, operated on 220/250 volts-50 cycles. Catalogs, descriptive material requested. Cyprus market small and competitive. Quote c.i.f. Cyprus. Direct purchase & agency. George S. Galaratiotis & Sons Ltd. (I, A, D, R), 172 St. Andrew St., P.O. Box 19, Limassol.

36515 — GERMANY — Loudspeakers for automobile radios to be built into rear seats, doors, etc. David C. Lacey, American Consulate General, 7 Urbanstrasse, 7 Stuttgart 1. Needs products urgently, has excellent sales organization throughout Germany.

Communication equipment

●36600 — ALGERIA — Supply of miscellaneous signalling equipment for state railways. Tender No. 50-16/B.Y. VB. 302 B, bid deadline June 27. Correspondence in French required. Offers may be partial or complete. Tender documents available from Monsieur L'Ingenieur Chef In Service de la Voie et des Baliments (S.E.S.), SNCFA, 21-23 Blvd. Mohamed V, Algiers, Algeria, Telex 52851, cable address Cefafer Voie Alger. When tenders are received from Algeria they will also be available on a 5-day loan basis from the Science and Electronics Division, BCABP-466, Room 1112, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-4822).

●36600 — ALGERIA — Supply of aerial and underground telephone lines joining material, for state railways; 500 type R2 junction boxes, 2,200 type RPF, 6,200 type RPF8, and 100 type RPF14; and fuses, lightning protectors, and numerous

accessories for same. Tender No. 50-14/B.6-VB 302B, bid deadline of June 27. Correspondence in French required. Offers may be partial or complete. Tender documents available from Monsieur L'Ingenieur Chef du Service de la Voie et des Batiments (S.E.S.), SNCFA, 21-23, Blvd. Mohamed V, Algiers, Algeria, Telex 52851, cable address Cefafer Voie Alger. When tenders are received from Algeria they will also be available on a 5-day loan basis from the Science and Electronic Division, BCABP-466, Room 1112, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-4822).

36625 — AUSTRIA — Apparatus for detection of gases, electric current, noise, leakage. Chemie & Huette Ges. M.B.H. Dry Wall Div., Mr. M. Percic (I, A), Ebendorferstr. 10, A-1010 Vienna.

36629 — SINGAPORE — Underwater communication equipments. Petro-Sea International (Pte) Ltd. (civil engineering & construction works), International Bldg., Orchard Rd., Singapore-9.

Electronic components, accessories

36730—BRAZIL—Electronic tubes to be used in industrial electronic equipment. Constucoes Eletronicas Industriais Ltda. (M), Av. Columbia 212, Vila Sta Catarina 04371, Sao Paulo.

36740 — YUGOSLAVIA — About 180,000 transistors annually for TV tuners equivalent to: (A) Siemens catalog nbrs. AF-139 and AF-239, or equal, about 120,000 pieces: (B) Philips catalog nbrs. BF-180, BF-181, BF-182, or equal; 60,000 pieces. Community antenna amplifiers equivalent Philips catalog nr. BFY 90, or equal; about 2,000 pieces annually. Samples, prices requested. Elrad (M), 69250 Gornja Radgona.

36741—GERMANY—All kinds of standard semiconductors for use in manufacture of entertainment electronic products. Interested in U.S. suppliers not yet active in German market. Market situation for electronic components is rather tight at moment and company wants to ensure uninterrupted supply of needed parts. Mr. Richard A. Dugstad, American Consulate General, 2-4 Bockenheimer Landstrasse, 6000 Frankfurt.

36790 — BRAZIL — Electronic components to be used in industrial electronic equipment. Construcoes Eletronicas Industriais Ltda. (M), Av. Columbia 212, Vila Sta Catarina 04371, Sao Paulo.

36790—GERMANY—All kinds of standard active and passive electronic components for use in manufacture of entertainment electronic products. Interested in U.S. suppliers not yet active in German market. Market situation for electronic components is rather tight at moment and company wants to ensure uninterrupted supply of needed parts. Mr. Richard A. Dugstad, American Consulate General, 2-4 Bockenheimer Landstrasse, 6000 Frankfurt.

36790 — NIGERIA — Blank cassette tapes, C-30, C-60, C-90 and C-120; 8 track cartridge tapes, 72 minutes and up; and reel-to-reel tapes, 5" and 7" spool, 150 to 3600 ft. Desires to order with private label "Progress". Requirement for 1,000 of each unit per mo. for 8 mos. beginning June 1, 1973. Quotations: c.i.f. Lagos. Mr. N. A. Ibeh (I, D), can be contacted at his U.S. address: Partners for Progress Ltd., P.O. Box 462, 52 Shetland Lane, Willingboro, New Jersey 08046

Electrical machinery, equipment, supplies

36930 — ISRAEL — Electro-medical apparatus—cardiographs; electrocardiographs, electrotherapeutic appartus. Ampa Ltd. (I, A, M), 16 Petah Tikva Rd., P.O. Box 636, Tel Aviv. Willing make direct purchase provided exporter can give exclusive representation later.

Motor vehicles, equipment

37141 — PARAGUAY — Motor vehicle parts, accessories for resale. Pena S.R.L. (I, A, D), Calle L. A. De Herrera 875 Asuncion.

37141 — SWITZERLAND — Volkswagen plastic conversion kit for customizing VWs; other VW conversion kits; all kinds of genuine novelty automotive accessories. Garage Corrosseire Populaire (I, A, R), Route Cantonale 114, Saint-Sulpice, Vaud. Wants to buy directly from manufacturers.

Railroad equipment

37412 — ZAMBIA — 3 ft. 6 in. gauge locomotive up to 25 tons. Diesel underground locomotives, battery driven locomotives, and battery stick locomotives. Flameproofing not required, but underground diesels should be fitted with ordinary-type scrubber. Firm plans to re-sell locomotives to copper mines, for which it has been largest supplier. E. L. Ramage, Fairway Eng. Ltd. (I, A, M), P.O. Box 348, Kitwe.

Motorcycles, bicycles, parts

37510 — AUSTRALIA — Motorcycle helmets, saddle bags, side covers for engines, speed equipment, performance equipment, ignition locks, fairings, special lighting equipment, tool kits, vacuum gauges, all of which are adaptable for Honda motorbikes & motorcycles. Direct purchase & agency. Bennett Honda Pty Ltd., Brian Vinson, Gen. Sales Mgr. (I, D, R, M), 2 Ralph St., Alexandria, NSW 2015. Mr. Brian Vinson travelling to U.S. latter part of May.

Transportation equipment

37992 — KOREA — Self-propelled snowmobiles for ski resort at Tae Kwal Ryong, Kangwon-do, Korea. Quotations, specifications, catalogs requested. Construction & Management Consultants (design and construction-resort development), I.P.O. Box 2251, Seoul. Pres.: Rodger I. Eddy.

Instruments for measurement, analysis and control

38210 — GERMANY — Instruments, materials for nondestructive testing, other testing machines. Mr. David C. Lacey, American Consulate General, 7 Urbanstrasse, D-7000 Stuttgart 1.

38210 — SINGAPORE — Diving equipments; decompression chambers. Petro-Sea International (Pte) Ltd. (civil engineering & construction works), International Bldg., Orchard Rd., Singapore-9.

Surgical, medical, dental instruments

38410 — GREECE — Implantable heart pace-setters powered by situ rechargeable batteries. If price under $1000 per unit, firm estimates annual sales of approx. 200. Distribution mainly through private clinics. Direct purchase & agency. Selidis Bros. (I, A), 2 Frangini St., Thesaloniki. WTDR 3/73.

38410 — ISRAEL — Diagnostic apparatus, including such items as metabolism and blood pressure apparatus; opthalmoscopes; otoscopes, cytoscopes, anasthesia apparatus, anthropometrical apparatus; auriscopes, blood transfusion equipment: bronchoscopes, catheters; corneal microscopes: cystoscopes; forceps, surgical; gastroscopes; hypodermic needles and syringes; inhalators-surgical and medical; surgical knives; needle holders—surgical; physiotherapy equipment, electrical; veterinarians' instruments and apparatus. AMPA Ltd. (I, A, M), 16 Petah Tikva Rd., P.O. Box 636, Tel Aviv. Willing to make direct purchase provided exporter can give exclusive representation later.

38421—ITALY—Disposable medical supplies. Wishes import products for resale in its retail outlet. Cav Giuseppe Lanzoni e Figli S. N. C. (I, R), 6 Via Zamboni, 40126 Bologna.

Photographic equipment, supplies

38612 — FRANCE — Photocopying equipment, offset. International Copy (I, R), 123 Rue du Faubourg Du Temple, Paris 10. WTDR 7/72.

Jewelry, silverware, plated ware

39142 — IRELAND — Catering tableware in stainless steel. Hugh Jordan & Co., Ltd. (I, A, M), St. Mark's Works, Lombard St., E., Westland Row, Dublin 2.

Musical instruments, parts

39310 — FRANCE — Musical instruments. Direct purchase & agency. Comadis (I, R), 6 Ave. Paul Bert, 92190 Meudon.

Toys, amusement, sporting goods

39410—FRANCE—Toys and hobby items for ages 12 through 20. Direct purchase & agency. Albanel (I, A, D), 18, Rue Marc Antoine Petit, 69002 Lyon.

39410 — FRANCE — Marbles, all colors and forms, 16 mm and other diameters. (M, R, I), 12, Rue Alsace-Lorraine 94 St., Maur-Des-Fosses.

39410 — FRANCE — Toys, except dolls, children's vehicles & rubber toys, particularly new items. R & M. Colichet (I, A), 11 Rue d'Abbeville, 75010 Paris. Specializes in direct sales to factories for their annual Christmas programs at which toys, gifts distributed to employees and their children. Does not distribute products through normal distribution channels.

39410 — ISRAEL — Children's toys and games. Investex Import-Export, Ltd. (I, E), 21 Sirkin St., Tel Aviv.

39410 — SWITZERLAND — All kinds of novelty toys, games, specialties. D. Dzialoszynski (A, I), Spalenring 40, 4055 Basel. WTDR 3/73.

39420—FRANCE—Dolls and stuffed toy animals, particularly new items. R. & M. Colichet (I, A), 11 Rue d'Abbeville, 75010 Paris. Firm specializes in direct sales to factories for their annual Christmas programs at which toys, gifts are distributed to employees and their children. Does not distribute products through normal distribution channels.

39430 — AUSTRIA — Children's sidewalk cycles. Modenmueller, Attn: Paul

Neuburger (I, R), Wienerstrasse 286, A-8021 Graz. See listing 28232—AUSTRIA.

39430 — ISRAEL — Folding baby carriages, including combination carriage/stroller; and strollers. Investex Import-Export, Ltd. (I, E), 21 Sirkin St., Tel Aviv.

39493—ITALY—Low priced baseball and softball gloves, other baseball, softball supplies. Macron Sport S. R. L. (I, D), 26/A Via Firenze, 40139 Bologna.

39493 — KOREA — Snow skis and poles. Quotations, specifications, catalogs requested. Construction Management Consultants (design and construction-resort development), I.P.O. Box 2251, Seoul. Pres.: Rodger I. Eddy.

Costume jewelry, novelties, buttons, notions

39620—BELGIUM—Dried natural flowers. Dekovan, Attn: Mr. Vanhandsaeme, Mgr. (wholesalers of floral articles), Fabriekskaai 24, 8500 Kortrijk.

Manufacturing industries

39991 — NETHERLANDS — Fixed system chemical fire extinguishing equipment and parts. Exclusive sales representations. A. Merkx Verwarmings—En Stooktechnisch Bedrijf B.V. (I, A, D, M), P.O.B. 104, 50 Lam. Majoorlaan, Bussum. WTDR 4/73.

39999 — AUSTRALIA — Inexpensive novelties of all types which can be embellished with photographs, and place names suitable for tourist, souvenir trade. Murray Views Proprietary Ltd. (I, A, D), P.O. Box 21, Gympie, Queensland, 4570.

39999 — SWITZERLAND — All kinds of novelties, premium goods, gift ware, advertising specialties. D. Dzialoszynski (A, I), Spalenring 40, 4055 Basel. WTDR 3/73.

Wholesalers

50930—COLOMBIA—30,000 metric tons steel scrap. Empresa Siderurgica S.A. (Simesa) (M), Avenida De Los Industriales No. 17-226. Apartado Aereo, P.O. Box 955, Medellin. WTDR 11/72.

50930 — TAIWAN — Scrap metals (iron, tin, zinc, lead, and brass) salvaged vessels for dismantling. Yearly purchase volume of scrap iron and non-ferrous metals will be over 200,000 long tons. Enterprises wish to purchase salvaged vessels for dismantling as many as available. Wens Enterprises, Ltd. (I, A), 4, Alley 71, Lane 16, Wen Chang St., Taipei, 106.

Antique, secondhand stores

59310 — BANGLADESH — Secondhand clothing. Sadaruddin Ahmed (I, R), 22 Municipal Hawker's Market, Sadarghat, Dacca-1.

Business services

73920 — TURKEY — Know-how for production of cotton underwear and underwear fabric. Firm in joint venture with German firm for production of ready-made clothing for export. Wishes acquire underwear manufacturing know-how either through direct purchase of technology, licensing agreement, or joint venture arrangement. Timely response essential as firm actively exploring possibilities of similar arrangement with European firms. Tac Sanayi Ve Ticaret Anonim Sirketi (M), Mimar Kemalettin Caddesi 43, Izmir A-6.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Small arms ammunition

19610—AUSTRALIA—Air rifles. Acts as agent for variety of manufacturers and sells to all major department stores, chain stores, discount stores, hardware goods, electrical retailers, marine outlets and fitters and fashion stores. Good contact for manufacturers not represented in Australia. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000.

Canning, preserving foods

20320 — UNITED KINGDOM — Health foods. Exclusive agency. Schweppes (Agencies) Ltd., I. S. Wordsworth, Gen. Mgr. (A, D), Silverthorne Rd., South Lambeth, London SW8.

20331 — SPAIN — Canned pineapple, in either water or syrup; in cans of five kilos. Suminde (A), Apartado Postal 620, Murcia.

Bakery products

20511 — TAIWAN — Diet foods. Elegant Corp. (I, exporter), 42, I-Tung St., Taipei (104).

Food preparations

20962 — KUWAIT — Margarine. Jabshe Trading Co. (I, A, D, R), P.O. Box 632, Kuwait. Cable Jabshe.

20994 — TUNISIA — Dry yeast (market potential 50 tons). V & R Suied (I, A), 34 Rue Disi El Adjami, Tunis.

Broad woven fabric mills, cotton

22110 — UNITED KINGDOM — Upholstery fabrics of cotton. Major UK-based multi-national manufacturer seeks distributorship arrangements. Products required for diversification and intended mainly for overseas marketing. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

22113 — IRELAND — Distributorship arrangement for printed materials for shirts, blouses, underwear. Manufacturers' agents dealing in all types of textile piece goods. Anxious expand range of products. E. S. Geisler & Sons (I, A, D), 20 Glenomena Park, Blackrock, Co. Dublin.

Broad woven fabric mills, manmade fiber, silk

22210 — IRELAND — Piece goods of woven and knitted fabrics, synthetics, rayon, blended materials. E.S. Geisler & Sons (I, A, D), 20 Glenomena Park, Blackrock, Co. Dublin.

22210 — UNITED KINGDOM — Upholstery fabrics of man-made fiber and silk. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

22211—CYPRUS—Upholstery synthetic fabrics plain and/or printed; sample ranges and quotations c.i.f. Cyprus requested. Exclusive agents. Loizos Georgiades & Sons Ltd. (A), 107 Onassagoras St., P.O.B. 1289, Nicosia.

22211 — SPAIN — Upholstery fabrics, Rayon and/or acetate. TADISA (A, D), Orfila 10, Madrid 4.

22215 — SWEDEN — Single—and multitubing of nylon for pneumatical use. Pressure capacity maximum 180 PSI pressure per sq. in. RMH Service AB (I), Hantverkshuset, S-195 00 Marsta.

22216—ISRAEL—Upholstery fabrics and velvet for upholstery. "Hadar" Y. Aleksandrowicz (I, A), 68 Herzl St., P.O.B. 5025, Tel Aviv.

22216—SPAIN—Upholstery and drapery fabrics (nylon), grey goods. TADISA (A, D), Orfila 10, Madrid 4.

22217 — SWITZERLAND — Polyvinyl alcohol (PVA) woven fabrics, hot water soluble, width 41, 48, 54 and 57 in., suitable for corrosive embroidery; yarn no. 53 or 123; bluish or greenish tint. Is multinational job dyeing and finishing firm. Initial orders would be small scale, but potential orders very significant. OHC Ostertag, Hausamann, Faes & Co. AG, Attn: Mr. Willi Widmer (I, job dyeing and finishing), Gotthardstr. 61, POB 442, CH-8027 Zurich.

Broad woven fabric mills, wool

22310 — UNITED KINGDOM — Upholstery fabrics of wool. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

Yarn, thread mills, products

22810 — AUSTRALIA — Textile yarns—2/30S and 2/40S 65% polyester/35% viscose blend yarn undyed on cone for weaving-end use woven apparel. (Quantity at present imported annually-five million lbs.) 1/50S combed cotton yarn on cone and 1/50S 65% polyester/35% cotton for end use of knitted underwear and casual wear. S. W. Church & Co. Pty. Ltd. (I, A), 328 Flinders St., Melbourne 3000. WTDR 3/73.

22823 — NETHERLANDS — Manmade fibers for textile industries for export to Peoples Republic of China. Sembodja Holland B.V. (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

Textile goods

22910 — AUSTRIA — Industrial felts. Exclusive rights for Austria, Hungary, Yugoslavia. Samples, prices requested. Imporex Ges. m.b.H (I, A), Koerblergasse 35-37, A-8011 Graz.

22953 — AUSTRIA — Technical fabrics of all types. Exclusive rights for Austria, Hungary, Yugoslavia. Samples, prices requested. Imporex Ges. m.b.H. (I, A), Koeblergasse 35-37, A-8011 Graz.

22960 — AUSTRIA — Tire cord and tire fabrics of cotton or man-made fibers. Exclusive rights for Austria, Hungary, Yugoslavia. Samples, prices requested. Imporex Ges. m.b.H. (I, A), Koerblergasse 35-37, A-8011 Graz.

22992 — TUNISIA — One million second hand, first class jute bags for soybean cake, maize, rice, for resale. V & R Suied (I, A), 34 Rue Disi El Adjami, Tunis.

Men's, youths', boys' clothing

23210 — LEBANON — Men's shirts.

Exclusive agency and distributorship arrangement for Lebanon. Parade (Miharan Krikorian & Yepraxi Krikorian) (I, R, D), Starco Center, Georges Picot St., Beirut.

Women's, misses', children's, infants' under garments

23412 — IRELAND — Ladies, children's underwear, cotton, synthetic, blends. Anxious to expand range of products. E. S. Geisler & Sons (I, A, D), 20 Glenomena Park, Blackrock, Co. Dublin.

Miscellaneous apparel, accessories

23850 — AUSTRALIA — Waterproof skindiving clothing for men and women. Company anxious diversify operations and eager to take on U.S. representation; expanding rapidly. Shamrock Corp. Pty Ltd. R. W. Aitken, Dir. (A, D), 255 Castlereagh St., Sydney, NSW 2000.

Fabricated textile products

23910 — CYPRUS — Curtain material, plain and/or printed, with pasted plastic sheeting on back to keep sunlight out. Sample ranges, quotations c.i.f. Cyprus requested. Exclusive agents. Loizos Georgiades & Sons Ltd. (A), 107 Onassagoras St., P.O.B. 1289, Nicosia.

23940 — UNITED KINGDOM — Canvas tents for camping; sails for leisure boats; other camping and sailing accessories. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

23990 — UNITED KINGDOM — Automobile safety devices. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

23990—UNITED KINGDOM — Sleeping bags, other camping accessories. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

Wood products

24996—AUSTRALIA—Acoustic building materials; e.g., acoustic tile for sound absorption and reduction; noise rated doors & windows, acoustical gaskets, machinery vibration mounts, etc. Acoustics & Building Pty. Ltd. (consultant & contractor), P.O. Box 78, Wahroonga. NSW 2076.

Paper mills, products

26210—UNITED KINGDOM — Hanging paper, other wall covering. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

26216 — ISRAEL — Drawing paper, millimetric paper, tracing paper, sketching paper used by draftsmen, graphic artists. S. Gutowska Ltd. (I, A, D), 72 Nahlat Benjamin St., Tel Aviv. Interested in working on exclusive agency basis.

26219 — NETHERLANDS — Special industrial papers; exclusive representations requested for Benelux countries. W. H. Bijl (I, A, D), P.O. Box 547, Industrieterrein De Kronkels, Bunschoten.

Paperboard mills, products

26317 — NETHERLANDS — Special combination packaging and industrial converting paperboard. Exclusive representations for Benelux countries. W. H. Bijl (I, A, D), P.O. Box 547, Industrieterrein De Kronkels, Bunschoten. WTDR 3/73.

Converted paper, paperboard products

26415 — NETHERLANDS — Waterproof, moistureproof and vapor barrier paper, laminated and coated films and papers. Exclusive representations for Benelux Countries. W. H. Bijl (I, A, D), P.O. Box 547 Industrieterrein De Kronkels, Bunschoten.

26440 — PORTUGAL — Machine printed wallpaper. Vazel-Exportacao E Importacao. Lda. (I, D), Rua Arco Do Carvalhao 65-First Floor Esq. Lisbon.

26440 — UNITED KINGDOM — Wallpaper of all kinds. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

26495—UNITED KINGDOM—Decorated wallboard; enameled masonite wall tiles; other wall covering. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

Building paper, building board mills

26610 — AUSTRALIA — Semi-bleached kraft paper, approx. 120 grams per sq. meter for use in building trade; 20 to 40 tons per annum. D.S.L. Enterprises Pty. Ltd. (I, A, D), P.O. Box 145, Darlinghurst, NSW 2010.

26611 — CANADA — Insulation board, related products for building construction. Walken Industries—Contact: Ken W. Renshaw, President (A, D), 327 Dalesford Rd., Toronto 18, Ontario.

Books

27315 — AUSTRALIA — Books of all kinds to sell to retail trade. Interested in agency status with publishers. Own and operate two retail book stores; interested in remainders and ends of lines; Australia's largest independent national book wholesaler. Mr. & Mrs. Ron Abbey, Dirs. of company, will visit U.S. starting May 25, and would like to visit interested publishers. Books wholesale Co. Pty. Ltd. (I, A, D), 283 Clarence St., Sydney NSW 2000, Box Q195, Post Office, Queen Victoria Bldg. Sydney, NSW 2000.

Industrial chemicals

28120 — BANGLADESH — Industrial chemicals. Halim Foundation (D, A), 31 Bagabandhu Ave., Dacca-2. Cable: Halimbros, Dacca; Phone 280-940. WTDR 3/73.

28152 — NETHERLANDS — Organic synthetic dyes, cyclic, similar types of chemicals for export to Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

28184 — NETHERLANDS — Synthetic organic agricultural chemicals, pesticides for export to Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

Synthetic materials

28214 — NETHERLANDS — Thermoseting resins, plastics materials for export to the Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

28242—AUSTRALIA—Steady supply of between 44 and 110,000 yds. monthly of polyvinyl acetate filling treated fabrics; 20/1 x 20/1 cotton; 32 x 33 mesh; 46 in. width, for use in carpet backing, etc. Exclusive agency. D.S.L. Enterprises Pty. Ltd., Attn: David L. Cohen (I, A, D), Box 145, Darlinghurst, NSW 2010.

Drugs

28340 — CAMEROON — Pharmaceutical preparations. Company with good local backing plans open plant for making medicines; is interested in obtaining licenses for production of widely used patent medicines, other preparations. Laboratories Pharmaceutiques Camerounais, PHARMACAM (M, I, D), B.P. 44002, Douala.

28340 — ITALY — Original pharmaceutical preparations. Istituto Lusofarmaco d'Italia (M, D), Via Carnia 26, Milan. Firm would also consider acquisition of license.

28343 — NETHERLANDS — Pharmaceutical preparations acting on cardiovascular system, for human use for export to Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

28344 — PORTUGAL — Pharmaceutical preparations for treating bronchial diseases. Equipamentos De Laboratorio, Lda. (I, A, D), Casal Do Garoto, Estrada Lisboa-Sintra (Apartado 1,1000), Amadora.

28346 — NETHERLANDS — Pharmaceutical preparations, acting on the skin, for human use for export to Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

28346 — PORTUGAL — Pharmaceutical preparations for external use, and other health products in aerosol form. Aviquimica, Importacoes e Manufacturas, Lda. (I, A), Alameda D. Afonso Henriques 76 R/C Dto., Lisbon 1.

28349 — NETHERLANDS — Pharmaceutical preparations for veterinary use for export to People's Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28413 — JAPAN — Granulated cleaning concentrate with fragrance for dish washing and laundry; seeks distributorship arrangement with supplier; preferably West Coast to minimize shipping costs. Packing plant now produces packages containing 15 gr. and 15-20 kg.; sells 30% to National Railway, fire brigades, self-defense forces, garages and hospitals; and 70% to individuals. Estimated monthly need 20 tons. Sample needed for testing. Masuda Shoten, Attn: Zenichi Masuda (D, R), Nishi 1-Jo Kita 4-Chome Bibai Hokkaido.

28442 — PORTUGAL — Perfumes, toilet waters, colognes. Novas Tecnicas De Construcao e Decoracao, LDA. (I), Rua Do Centro Cultural 43 A/B Lisbon 5.

28444 & 28445 — PORTUGAL — Toothpaste, other hygiene products in aerosol form. Aviquimica, Importacoes e Manufacturas, LDA. (A, I, A), Alameda D. Afonso Henriques 76 R/C Dto., Lisbon 1.

28445 — PORTUGAL — Cosmetic creams, cleansing, foundations, lubricating cosmetic oils; eye preparations (mascara, eye shadow, eye liners, eye creams); face powder, talcum; lip preparations (lipsticks, lip rouge, etc.). Novas Tecnicas De Construcao e Decoracao, LDA. (I), Rua Do Centro Cultural 43 A/B, Lisbon 5.

Paints, varnishes, lacquers, enamels

28516 — AUSTRALIA — Marine paints. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

Gum, wood chemicals

28610 — AUSTRALIA — Gum & wood chemicals for use in paint & plastics industries. Read & Read (I, A), 49-51 York St., Sydney NSW 2000.

Agricultural chemicals

28712 — NETHERLANDS — Fertilizer materials of organic origin, nitrogenous mixtures and materials for export to Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

28790 — NETHERLANDS — Agricultural pesticides, insecticides, fungicides, other agricultural chemicals for export to People's Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle. (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

Chemical products

28930 — AUSTRALIA — Printing ink. Read & Read (I, A), 49-51 York St., Sydney NSW 2000.

Tires, tubes

30113 — NETHERLANDS — Tires for earth movers, tractors for export to Peoples Republic of China. Sembodja Holland B.V., Attn: Robert Van Marle (I, A, Exporter), P.O. Box 1079, 728 Keizersgracht, Amsterdam. WTDR in prep.

Fabricated rubber products

30690 — UNITED KINGDOM — Inflatable rubber life jackets, preservers and rafts, other leisure boat accessories. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

30693—SPAIN—Upholstery, Latex foam rubber. TADISA (A, D), Orfila 10, Madrid 4.

30695—AUSTRALIA—Inflatable rubber boats. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

Plastic products

30790 — UNITED KINGDOM — Plastic life rafts, other leisure boat accessories. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

Industrial leather belting, packing

31210 — SWEDEN — Oil seals, leather. Nomo Kullager AB (I, A, D), Drottninggatan 81B, S-11 60 Stockholm. WTDR 6/72.

Glass, glassware

32294—AUSTRALIA — Glassware products and drinking glasses, plain, colored, cut glass range low to high quality; crystal drinking glasses, plain and cut. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

Glass products

32316—AUSTRALIA — Glassware products and drinking glasses, plain, colored, cut glass range low to high quality; crystal drinking glasses, plain and cut. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

32316 — BANGLADESH — Glassware for laboratory, scientific uses. Halim Foundation (I, R, D, A), 31 Bangabandu Ave., Dacca-2. Cable: Halimbros, Dacca. WTDR 3/73.

Pottery, related products

32620 — AUSTRALIA — Hardware and kitchenware lines including sauce pans, aluminum and stainless steel in plain, enameled and patterned, kitchen utensils, cutlery, pewter articles, table settings. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

Abrasive, asbestos, nonmetallic mineral products

32933 — SPAIN — Blocks or pads made of resin-base insulating compound used to block or pad machines, generators, etc. Insimar, S.A. (A, D), Avenida San Diego 16, La Corun.

Trade Leads Now Mailed

The Commerce Department is now mailing trade leads for certain products directly to U.S. suppliers, as announced earlier this year. These leads are no longer publicized either in *Commerce Today* or in *Commerce Business Daily*.

Within seven days of overseas transmission, trade leads for products in the following industries are mailed to U.S. firms registered on the Commerce Department American International Traders Register (AITR):

- ► Electronic Data Processing Equipment
- ► Food Packaging and Processing Equipment
- ► Pumps, Valves and Compressors
- ► Airconditioning and Refrigeration Equipment
- ► Agricultural Machinery and Equipment

Another industry has now been added to this list:

- ► Industrial and Scientific Instrumentation.

To receive these direct mail trade leads, U.S. firms not already registered on the AITR should contact the nearest Commerce Department District Office (see list, inside back cover) for registration information.

Steel mill products

33123 — ISRAEL — Hot rolled steel sheets, strips. Eliahu Pshouti (A), 8 Mikveh Israel St., P.O. Box 2915, Tel Aviv. Wishes to work on exclusive agency basis only. Would like to be in contact either with manufacturers or exporters.

33123—SPAIN—Tin plate, black plate, terne plate, other tin mill products. SUMINDE (A), Apartado Postal 620, Murcia.

33124—SWITZERLAND—Stainless steel plates, hot rolled steel plates, all common kinds and finishes. Seeks exclusive distributorship. Briner & Co., Attn: K. Mueller (I, D), Oberer Graben 6, P.O. Box CH8401 Winterthur.

33127 — SWITZERLAND — Carbon, galvanized and stainless steel sheets, hot and cold rolled, copper alloyed, pickled steel sheets, other kinds and finishes. Seeks exclusive distributorship. Briner & Co., Attn: K. Mueller (I, D), Oberer Graben 6, P.O.B., CH-8401 Winterthur.

33167 — ISRAEL — Cold rolled steel sheets, strips. Eliahu Pshouti (A), 8 Mikveh Israel St., POB 2915, Tel Aviv. See item 33123—ISRAEL.

33168 — ISRAEL — Cold stainless steel sheets, rods and tubes; primes and surplus stocks. Eliahu Pshouti (A), 8 Mikveh Israel St., POB 2915, Tel Aviv. See item 33123—ISRAEL.

Rolling, drawing, extruding of nonferrous metals

33512 — ISRAEL — Brass and copper sheets, rods and tubes. Eliahu Pshouti (A), 8 Mikveh Israel St., POB 2915, Tel Aviv. See item 33123—ISRAEL.

33579 — AUSTRIA — Insulated cables and wires, other than enameled or lacquered; for sale to electric industry manufacturing appliances and communication equipment. Literature, prices requested. M.A.G. Fuchs K.G., Attn: Fritz Faerber (A, D), Puntigamerstrasse 127, A-8055 Graz-Puntigam.

Metal cans

34110 — PORTUGAL — Empty aerosol metal cans. Aviquimica, Importacoes e Manufacturas, Lda. (I, A), Alameda D. Afonso Henriques 76 R/C Dto., Lisbon 1.

Cutlery, hand tools, general hardware

34211 — CYPRUS — Hotel table cutlery. Catalogs, prices c.i.f. Cyprus. Exclusive agents. Loizos Georgiades & Sons Ltd. (A), 107 Onassagoras St., P.O.B. 1289, Nicosia.

34231—AUSTRALIA—Hand tools, nonelectric, singular and sets. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

34231 — SWITZERLAND — Hand tools, pneumatic, electric and other for car servicing, car body repair. Fribac, Attn: Fritz Bachmann (A, I, D), Zurcherstr. 107, 8640 Rapperswil.

34291 — AUSTRALIA — Marine chandelery. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

34292, 34294 — ICELAND — Builders' hardware, furniture hardware. K. Thorsteinsson & Co. (I, A, D), P.O. Box 1145, Reykjavik.

Heating apparatus, plumbing fixtures

34310 — ISRAEL — Kitchen sinks, other accessories. M.H.G. Agencies Office (A), POB 16564, Tel Aviv. Wishes to work on exclusive agency basis.

34320 — ISRAEL — Nickel and chrome plated faucets for sinks, bathtubs as well as accessories. M.H.G. Agencies Office (A), POB 16564, Tel Aviv. Inquirer wishes to work on an exclusive agency basis.

Fabricated structural metal products

34492 — ISRAEL — Prefabricated metal storage house up to 160 sq. m.; prefabricated swimming pool 3 x 4 m. up to 25 x 12-1/2 m. depth 1 - 1.90 m. Bintex A.G. (A), Daniel Moritz 50, P.O.B. 39031, Tel Aviv. Exclusive agency only.

Metal stampings

34615 — BELGIUM — Cooking and kitchen household utensils. Sibir Belge S.A. (I, D), Chaussee de Louvan, 332, B-0300 Wavre.

Fabricated metal products

34944 — ISRAEL — Thermodynamic steam traps. Exclusive agency. Transtechnica Ltd. (I, A), 34 Petach Tikva Rd., P.O. Box 325, Tel Aviv. WTDR 11/72.

34946 — SWEDEN — Nylon or brass fittings for pneumatic single- or multitubing. RMH Service AB (I, A, D), Hantverkshuset, S-195 00 Marsta.

Construction, mining, materials handling machinery, equipment

35310 — AUSTRIA — Special machinery for construction industry, including road construction. Ing. W. Hamerschlag & Co. K.G. (I, A, D), Renngasse 10, A-1010 Vienna.

35314 — CZECHOSLOVAKIA — Heavy construction cranes capable of lifting prefinished modular dwelling units for insertion in high-rise apartments (up to 12 stories) erected from prefabricated concrete H-frames. Vyzkumny USTAV Pozemnich Staveb Praha, USEK Gottwaldov. ("Prague Construction Research Institute, Gottwaldov Branch.") (Research institute given authority by Ministry of Foreign Trade and Czech Ministry of Housing to deal directly with foreign suppliers. Ing. Otakar Paulus, CSC. Head of Vyzkumny USTAV Pozemnich Staveb Praha, USEK Gottwaldov, Trida Uderniku 38, 76271 Gottwaldov, CSSR. Requests replies as soon as possible.

35319 — SOUTH AFRICA — Vibratory screens as used for sifting powders, foodstuffs and grain. Catalogs, descriptive materials requested. Mechanica Rand Pty Ltd., C. R. Laing (I, A, D), P.O. Box 47041, Johannesburg. WTDR 3/73.

35320 — JAPAN — Underwater Development systems possibly combining such equipment as underwater dwelling unit, underwater instrument housing, underwater explorer and manipulator, ocean cranes, ocean bottom boring and drilling equipment, etc. Okura Trading Co., Ltd., Attn: Mr. Hideo Morozumi, Chemical Machinery Dept. (I, A, D), 3-6 Ginza 2-Chome, Chuo-ku, Tokyo 104.

35370 — FINLAND — Traveling platform loader/unloader and elevator systems, also known as highloaders, for handling large aircraft, e.g. DC-10-30 cargo at airport; also catering highloaders. Descriptive materials requested. Yrjo Laakso & Co. OY (I, A, D), Mannerheimintie 16 A, 00100 Helsinki 10.

35370 — SWITZERLAND — Warehouse-pallets-stacking carts (hand-operated); pallet-lifting devices; simple conveyors for warehouses. Baltag AG, Werner Bachofner (D, R, M), Postfach, 89062 Bonstetten. WTDR 3/73.

Metalworking machinery

35415 — NIGERIA — Metal cutting lathes, shapers and milling machines suitable for small metalworking shops with moderate degree of sophistication. Mr. P. C. A. De Jeu, Mgn. Dir., Witt & Busch Ltd. (I, A, D), Apapa Rd., Ijora Causeway, P.O. Box 17, Lagos.

35419 — AUSTRIA — Special machine tools. Ing. W. Hamerschlag & Co. K.G. (I, A, D), Renngasse 10, A-1010 Vienna.

35481 — CZECHOSLOVAKIA — Equipment for expansion of Czechoslovakia's most modern steel works, including hot and cold rolling mills, annealing and galvanizing lines, and measuring instruments for mill use. Particularly desired are six-stand cold rolling mill, capable of producing sheets of .12 mm. thickness for food-canning industry, equipment for detection of flaws in sheets for food-canning industry. East Slovak Steel works (Vychodoslovenske Zeleziarne), Kosice, Czechoslovakia (M), and Dipl. Ing. Jan Tkac, Deputy Gen. Dir. for Investment, East Slovak Steel Works—VSZ, Kosice, (Telex: 077343 Vszke C).

Special industry machinery

35521 — CYPRUS — Four power looms (two each plain and jacquard) for weaving terry toweling 240 cm width; one strenter for drying and setting of cotton-polyester and other synthetic fabrics; max. width of fabric 240 cm.; cap. ten meters per min. with padding mangle in front of it; on warping machine with creels and beams; two pirn winders. Descriptive catalogs; quote c.i.f. Cyprus. Stelios Tryfon & Sons Ltd. (I, A, D), 20A King Paul St., P.O.B. 1195, Nicosia.

35540 — SWITZERLAND — Paper mill equipment and supplies, attachments for paper industries machinery, control instruments. Paul Rutz, Attn: P. F. Rutz, Mgr. (I, A, D), Ave. Krieg 7, 1208 Geneva.

35552 — FRANCE — Graphic arts printing machines: bookbinding equipment. Logabax-Graphique (I, A, M), 79 Ave. Aristide Briand, 94110 Arcueil.

35591 — SWITZERLAND — Chemical engineering, process engineering machinery, parts, plant equipment. Ing. Dr. Brehm AG Attn: Hans Brehm, Pres. (A, Engineering Firm), Badenerstr. 29, 8004 Zurich.

35593—AUSTRALIA—Paint making machinery & plastics working machinery & equipment for printing & embossing on plastic & decorating plastic goods. Read & Read (I, A), 49-51 York St., Sydney NSW 2000.

35595 — BRITISH WEST INDIES — Desalinization equipment, sizes ranging from 100 gallons up. Seeks exclusive agency. Carries out sales and services in Bahamas, Cayman Islands, Haiti, Venezuela and The Netherland Antilles. Howden Caribbean Ltd. (I, D, Engineering Firm), P.O. Box 1036, Georgetown, Grand Cayman, B.W.I.

35595 — JAPAN — Advanced equipment, or system, related to processing metal powder. Those for manufacturing machine parts and components of high tension and accurate dimension from metal powder most desirable. Descriptive materials, catalogs requested. Hirel Co., Ltd. (I, A), Minami Bldg., 39 Ichigaya Honmura-cho, Shinjuku-ku, Tokyo 162.

General industrial machinery

35621 — SWEDEN — Complete ball and roller bearings. Nomo Kullager, AB (I, A, D), Drottninggatan 81B, S-111 60 Stockholm. WTDR 6/72.

35641—CANADA—Centrifugal fans for electronic cooling. 50 to 75 c.f.m. at 2 in. of static pressure; physical size should be no larger than 10 in. x 10 in. x 10 in. Torair Fans & Blowers, Contact: Gus Lamer (A), 603 Evans Ave., Toronto, Ontario. M8W 2W3.

35641 — SWITZERLAND — Air conditioning and purification ventilating equipment. Krueger Klimatechnik AG, Attn: J. Koller (A, D), 9113 Degersheim. WTDR 4/73. Will consider manufacture under license.

35673 — SWITZERLAND — Shrinking ovens for plastics packaging; industrial lacquer drying ovens. Baltag AG, Mr. Werner Bachofner (D. R. M), Postfach, 8906 Bonstetten. WTDR 3/73.

35690 — AUSTRALIA — Wrapping & packaging machines particularly suitable for use with plastic wrapping and packaging materials. Read & Read (I, A), 49-51 York St., Sydney, NSW 2000.

35690 — GERMANY — Packing and packaging machinery for packaging small industrial items as hardware, other components; as well as small consumer goods for shipping and selling in bundles; packaging, wrapping machinery for pharmaceuticals, cosmetics for shipping. Emball Maschinen GmbH (I, D, A), D-6202 Wiesbaden-Biebrich, Breslauer Strasse 14-16.

35690 — ISRAEL — Direct mounted gas chlorinator—rate 4 gal. per day up to 100 gal. per day; filters/strainers for swimming pool pressure earth diatomaceous rate from 10 cu. m. per hr. up to 200 cu. m. per hr. Bintex A.G. (A), Daniel Moritz 50, P.O.B. 39031, Tel Aviv. Exclusive agency only.

35690 — PORTUGAL — Aerosol packaging, filling machinery. Avinquimica, Importacoes e Manufacturas, Lda. (I, A), Alameda D. Afonso Henriques 76 R/C Dto., Lisbon 1.

Office, computing, accounting machines

35791 — SWITZERLAND — Gen. novelty office machines, supplies all kinds; in particular filing and accounting systems, labor saving devices, carding systems incl. EDP accessories, mini calculators, etc. Auto Doppik AG, Attn: W. Kaderli, Dir. (D), Bahnofstr. 6, 2501 Biel.

Service industry machines

35891 — CYPRUS — Commercial cooking, food warming equipment, operated on 220/250 volts - 50 cycles. Catalogs, descriptive material requested. Quote c.i.f. Cyprus. Direct purchase & agency. George S. Galateriotis & Sons Ltd. (I, A, D, R), 172 St. Andrew St., P.O. Box 19 Limassol.

35892 — ISRAEL — Sewage purification equipment (water) or package plant; pressure earth diatomaceous rate

from 10 cu. m. per hr. up to 200 cu. m. per hr. Bintex A.G. (A), Daniel Moritz 50, P.O.B. 39031, Tel Aviv. Exclusive agency only.

35892 — SWEDEN — Commercial dishwashing machines for cooking utensils. Hanning R. AB, Attn: Lars H. Johansson (I, A, D), P.O. Box 3045, S-400 10 Goteborg 3. WTDR 4/72.

35893 — AUSTRALIA — Ultrasonic cleaning equipment with capacity between 10 and 40 gal., which can be used for specialized office equipment cleaning purposes. Desires information on vapous degreasing units associated with ultrasonic cleaners, including service and maintenance details, description of power requirements and power consumption, circuit diagrams, accessories, spare parts, prices. Catalogs requested. Interested in importing as agent or distributor. D. Hine (I, A, D), 3 Carrabie St., Raaf Darwin, N.T. 5789.

Electrical industrial apparatus

36214—JAPAN—Compact, diesel enginedeive, electric generator sets (capacity: 5-300 KWVA); weight (including engine) per horse power: around 10 KG., if available. These generator sets will be used as prime movers for various plants and equipment. Minimum possible vibration and noise preferred; delivery date: approx. six months. Tozai Tsusho Co., Ltd., Attn: Kokei Ajimi, Pres. (I, A, D), Daiichi Mori Bldg., 1-12 Nishi Shimbashi 1-Chome, Minato-Ku, Tokyo 105.

36220 — SWEDEN — Earth leakage relays (controls for locating earth faults). Thorin & Thorin AB (I, A, D), Sten Aturegatan 8, S-411 30 Goteborg. Attn: Bengt Thorin. Products urgently needed.

Household appliances

36312 — UNITED KINGDOM — Barbecues and grills for outdoor cooking, other camping accessories. See listing 22110—United Kingdom. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

36343 — BELGIUM — Air purifier, portable, electric, household. Has warehouse, servicing capabilities. Sibir Belge S.A. (I, D), Chaussee de Louvain, 332, B-1300 Wavre.

36344 — BELGIUM — Electrical appliances, small household, parts and attachments. Has warehouse, servicing capabilities. Sibir Belge S.A. (I, D), Chaussee de Louvain, 332, B-1300 Wavre.

36360 — ECUADOR — Sewing machines, household, and parts, excluding cases and cabinets. Seeks agency arrangement; only direct offers from manufacturers and those which are competitive with Japanese price quotations will be considered. T. Traverso C. (I, A, D, R), P.O. Box 1332, Guayaquil.

Electrical lighting, wiring equipment

36426—ICELAND—Electric lighting and wiring equipment. Slippsstodin (I, shipbuilder), Akureyri.

36430 — AUSTRIA — Current-carrying wiring devices for electric industry, e.g. connectors, contacts, terminal blocks, terminal boards, etc. Literature, prices requested. M.A.G. Fuchs K.G., Attn: Fritz Faerber (I, A, D), Puntigamerstrasse 127, A-8055 Graz-Puntigam.

Radio, television receiving sets

36511 — SWEDEN — Home-type radio sets, transistorized portable radios and multiplex stereo receivers. Seeks agency arrangements. Ivan Hedqvist AB, Box 435, S-124 04 Bandhagen.

36512 — ECUADOR — Household television receivers, including television combinations. Seeks distributorship, has sales and service facilities throughout coastal section of Ecuador. Compania Anonima Balda Industrial Mercantil, c/o Hugo Balda-Cucalon, Mgr. (I, A, D, R, exporter), P.O. Box 4509. Guayaquil.

36513—AUSTRIA—Electronic home entertainment equipment other than TV-receivers; components, accessories, spare parts, related supplies for sale to retail establishments, interested in distributorship arrangement. Catalogs, price lists requested. Guenther Eder, Radio—U. Elektrogrosshandel (I, A, D), Loundonstrasse 42, A-1140 Vienna.

36514—SWEDEN—Home-type tape recorders with cassettes. Ivan Hedqvist AB (I, A), Box 435, S-124 04 Bandhagen.

Communication equipment

36623 — ITALY — Security devices—antitheft, antifire (devices to detect the cutting of wire fences; devices to detect intrusion; radars and lasers fixed or with spanning; capacitive systems). S.S.I. - Sistemi di Sicurezza Internazionali, Srl (A), Via Zezon 8, 20124 Milan.

36623 — ITALY — Microwave burglar alarms. CEME, Compagnia Equipaggiamenti Meccanici Ed Elettronici, S.P.A. (M), Piazza Mercato 11, 04100 Latina.

36624 — ICELAND — Electrical navigational aids, marine communications equipment, search and detection apparatus, (Radar, Sonar, Loran, etc.). Slippstodin H/F (I, Shipbuilder), Akureyri.

Electrical machinery, equipment

36930 — JAPAN — High performance X-ray apparatus for medical diagnostic use. Okura Trading Co., Ltd., Attn: Hideo Morozumi, Chemical Machinery Dept. (I, A, D), 3-6 Ginza 2-Chome, Chuo-Ku, Tokyo 104.

36930 — SWEDEN — X-ray equipment including X-ray tubes. Seeks agency arrangements. Nordisk Elektra AB Attn: Birger Sundberg (I, A), Hanogatan 2, S-211 24 Malmo.

36990 — ITALY — Electric glue gun. Neostucco, Srl (A), Via Codigoro 3, Milan.

Motor vehicles, equipment

37112 — JAMAICA — Trucks chassis suitable for equipping with tanks for carrying petroleum products (gross vehicle weigh about 35 tons), tandem type, with cab. Chassis should be patterned after U.S. safety standard for this type vehicle; e.g., mufflers in front, electric system with main safety switch. Request brochures, quotations c.i.f. Kingston. Petroleum Haulage Contractors Assoc. Attn: Henry Helps, Pres. (I, assoc. of transport contractors), 48 Barbican Rd., Kingston 6. Telephone 927-0995. Assoc. has membership of 45 contractors controlling 150 trucks delivering petroleum products throughout Jamaica. Assoc. is seeking agency to purchase approximately 30-40 truck chassis annually.

37141 — LEBANON — General line of auto spare parts, accessories; firm seeks exclusive agency, distributorship arrangement for Lebanon, Arab countries. Does not represent U.S. firms. Joseph & George Abdel-Massih Establishment (I, A, D), Abdel-Massih St., Bouchrieh, P.O. Box 80200, Bourj Hammoud.

37141 — AUSTRALIA — Automobile accessories. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

37141 — AUSTRALIA — Parts, accessories for motor vehicles such as road ranger gear boxes, transmission parts for all makes of trucks, truck clutch plates, universal joints, suspension bushes. Sees opportunity develop substantial business; affiliated with large New South Wales dealer in new and used vehicles, spare parts. Most anxious to establish contact with U.S. suppliers. A. F. Hall, Nuford Sales Pty. Ltd. (D, A), 956 Canterbury Rd., Lakemba, Sydney 2195.

Ship building, repairing

37323 — AUSTRALIA — Dinghys, canoes. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See listing 19610—AUSTRALIA.

Surgical, medical, dental instruments

38410 — JAPAN — Ultrasonic medical equipment and other high performance medical equipment lines. Okura Trading Co., Ltd. Attn: Hideo Morozumi, Chemical Machinery Dept. (I, A, D), 3-6 Ginza 2 - Chome, Chuo-Ku, Tokyo 104.

38410 — SWITZERLAND — Physiotherapy instruments. apparatus, equipment, all kinds. Dr. Blatter & Co., Attn: E. K. Blatter, Mgn. Dir. (I, D, R), Staubstr. 1, 8030 Zurich. Calls on hospitals, clinics, doctors, medical centers throughout Switzerland.

38410 — SWITZERLAND — Oxygenators, blood exchange bags and devices for heart-lung function medical equipment. Georg Bucher & Co., (I, A, R), Stochenstr. 4, 8802 Kilchberg.

38420 — SWITZERLAND — Aids for the handicapped, equipment for physical and occupational therapy. Dr. Blatter & Co., Attn: E. K. Blatter, Mgn. Dir. (I, D, R), Staubstr. 1, 8030 Zurich. Calls on hospitals, clinics, doctors, medical centers throughout Switzerland.

38430 — AUSTRIA — Denture materials; dental instruments; dental laboratory equipment, related products other than dental furniture. Catalogs, prices requested. Seeks distributorship arrangement. Klaus Klimisch (I, A, D), Ziegelstrasse 19/V, A-8045 Graz.

Photographic equipment

38610 — ITALY — Electrostatic copying machines (coated paper copiers lensed or without lens, direct electrostatic system with either powder or liquid toner). Gestetner Duplicator, Spa (A, D), Viale Vittorio Veneto 14, 20124 Milan.

Watches, clocks, parts

38711 — AUSTRALIA — Clocks, commercial and for home use; either battery operated or 240 volt 50 cycle electric. Desires either completed U.S. design clocks or parts for local assembling. Has outlets through agents and offices in all major cities and states of Australia. Smiths Industries Pty. Ltd., Consumers Trade Sales Div., Attn: David A. Boon (I, A, D), 46 Ferndell St., Guildford, NSW 2161.

Toys, amusement, sporting goods

39410 — AUSTRALIA — Model kits, hobby and educational kits, scale toys, cars, trucks, tractors, heavy construction models in cast aluminum, zinc, other quality metals, powered toys, electric and

battery. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See 19610—AUSTRALIA.

39410 — SWEDEN — Toys and games. Fifty States Import Export AB (I, A, D), Mullbarsstigen 2 N.B., S-196 32 Kungsangen.

39491 — AUSTRALIA — Fishing Equipment including rods and reels. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See 19610—AUSTRALIA.

39492 — AUSTRALIA — Golfing equipment. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney, NSW 2000. See 19610—AUSTRALIA.

39493 — AUSTRALIA — Swimming and diving equipment, soccer, hand & beach balls, indoor games. Academy Investments Pty. Ltd. (A, I, D), 117 York St., Sydney. See 19610—AUSTRALIA.

39493 — AUSTRALIA — Scuba diving equipment, such as aqua lungs and attachments, face masks, fins, etc. Shamrock Corp. Pty Ltd. R. W. Aitken, Dir. (A, D), 255 Castlereagh St., Sydney, NSW 2000. See 23850—AUSTRALIA.

39493 — UNITED KINGDOM — Specialist equipment for mountaineering and skiing. G. Gardiner Brown, Asst. Commercial Attache, American Embassy, Box 40, APO, N.Y. 09510.

39493 — VENEZUELA — All kinds of sporting goods, except fishing. Seeks distributorship arrangement. Electro Industrial Halven. O. L. Halvorssen C. A. (I, A, D), Edicicíao Halvan, Esquina De Monroy, Avda. Universidad Caracas.

Pens, pencils, office, artists' materials

39510 — GERMANY — Cartridge tubes for ball point pens made of copper nickel alloy. (M), David C. Lacey, American Consulate General, 7 Urbanstrasse, D-7000 Stuttgart 1.

39510 — SPAIN — Fountain pens, ballpoint type pens, desk sets, mechanical pencils. SUMINDE (A), Apartado Postal 620, Murcia.

39510 — SWITZERLAND — Ball point pens (retail price from 25¢ to 50¢). Will be in New York in May for negotiations. Mr. Theiler, Global Schreibwaren (I, D), Hafnerstr. 8, 9004 St. Gallen.

39521 — SWITZERLAND — Crayon sets for children; felt markers for all kinds of applications. Will be in New York in May for negotiations. Mr. Theiler, Global Schreibwaren (I, D), Hafnerstr. 8, 9004 St. Gallen.

39530 — JAMAICA — Rubber stamp components including handles, mounts, rubber matrixes. Request brochures, quotations c.i.f. Kingston. Exclusive distributorship. United Sales Co., Attn: Stephen A. Lord (I, A, D), 107 Water Lane, Kingston.

Manufacturing industries

39997 — SPAIN — Umbrellas, parasols. SUMINDE (A), Apartado Postal 620, Murcia.

39999 — SPAIN — Tobacco pipes; cigar, cigarette holders; cigar, cigarette lighters. SUMINDE (A), Apartado Postal 620, Murica.

Wholesalers

50930 — TURKEY — Scrap iron. Approx. annual requirement: 20,000 tons. Nesim Salah (A), Eski Gumruk Sokak, Kurkcubasi Han No. 21, Istanbul.

Future Construction Abroad

AUSTRALIA—The feasibility study of the proposed **$8.1 billion integrated industrial complex** in the Pilbara region of Western Australia will be jointly conducted by the Commonwealth and West Australian State Government. The proposed complex to be developed over a ten-year-period would include steel works, aluminum smelter, caustic soda plant, uranium enrichment plant, ferro-manganese smelter and a liquid natural gas facility. The services of outside consulting firms may be required. Interested U.S. firms should write directly to: Director, Pilbara Study Group, GPO Box D-160, Perth 6001, Western Australia. Expressions of interest will be kept on file.

ARGENTINA—Many **rural communities are in the process of electrification** using the cooperative approach. Although most of these projects involve small investments, it is a long-range potential for U.S. interests willing to bid on the necessary equipment and technical assistance required. U.S. suppliers can furnish the following electrical equipment: turbine generators, high-voltage wire for transmission lines, pumped storage turbines, switching apparatus and, particularly, outdoor-type transformers (step-up or reduction type). Interested U.S. contractors are urged to contact Ing. Valensiaga, Chief, Rural Electrification Dept. of the Argentine Undersecretariat of Energy, Av. Julio A. Roca 651, Buenos Aires.

BRAZIL—Very few U.S. firms responded to an item published earlier concerning **a multi-million dollar market for U.S. equipment in the Brazilian shipbuilding program.** This program is continuing and about $180 million in imports will be needed to carry it out. U.S. exports of shipbuilding equipment, especially navigational and radar equipment; automation equipment; winches and cranes, and mooring equipment are welcomed. SUNAMAM (Brazilian Merchant Marine Superintendency) has just obtained a $40 million loan (for imports) from a consortium of U.S. banks headed by Bank of America. A SUNAMAM official states that imports continue to be primarily British, German and Japanese, mainly because specifications prepared by British or German firms were tailored to equipment manufactured in Brazil. SUNAMAM officials indicated that if the United States is to gain a substantial share of this market, U.S. exporters should develop an aggressive sales campaign directed at Brazil's shipyards. SUNAMAM is prepared to seek credits from Eximbank or private banks when shipyards indicate interest in sizable purchases from the United States. A list of principal shipyards in Brazil is available from the U.S. Department of Commerce, Trade Opportunities Section, BIC-267, Washington, D.C. 20230.

ALGERIA—Postal and Telecommunications Minister, Said Ait-Messaoudene, has announced that $192 million will be budgeted in the next development plan for the **modernization and expansion of communications.** Oran is expected to be a "pilot zone" in the national telecommunications effort. Specific objectives reportedly include installation of 45,000 new telephones annually over the next three years and the rapid expansion of post office facilities, particularly in rural areas of interest to U.S. suppliers are plans for automation of postal office facilities. Postal checking services assertedly will be computerized. Internationally, the modernization effort will include establishing stations for intercontinental communications by satellite and particularly expansion of the inter-Maghreb network. The government agency in charge is Postal and Telecommunications, Sous-Direction du Materiel et des Marches, 4 Blvd. Salah Bouakouir, Algiers.

SOUTH AFRICA—The Cabinet has decided to proceed on a major **iron ore-export facility** to be constructed at Saldanha Bay, 70 miles north of Cape Town. The scheme will create a construction boom at Saldanha and on the right-of-way of the railroad, which is to be constructed and operated by ISCOR, the Government owned steel and ore company, P.O. Box 450, Pretoria. The direct costs of the project are estimated at about $650 million. Expansion of the town of Saldanha from a present population of 9,000 to an estimated 100,000 in ten years will require additional millions for housing and infrastructure. One of the industrial possibilities is a steel plant which would produce mainly for export. Austrian steel interests are the prime movers in this project. Another major project under consideration for Saldanha Bay is the construction of a dry-dock and ship-repair complex which could service the largest oil and bulk carriers now afloat.

CANADA—The Canadian Post Office Dept. and the Ministry of Public Works will build **a major postal plant (MAPP)** in Montreal as part of a plan to overhaul and modernize the metropolitan area's postal service. The new installation, which will be the major processing point for letters, parcels and bulk mail for the metropolitan area, will make use of the most technologically-advanced equipment to expedite sorting and delivery of mail. Cost figures have not been released, but the total project is expected to be valued at about C$100 million, mostly for equipment. Tenders should be called by mid-1974. The Montreal project manager for the Post Office Dept. is Bernard Gravel, 715 Peel St., Montreal, (514-283-5941), and the manager for the Ministry of Public Works is Guy Wolfe, 625 President Kennedy Ave., Montreal, (514-283-2448). U.S. suppliers of mail handling equipment wishing to participate in this project should communicate directly with R. M. Boyd, Director for Facilities and Equipment, Post Office Dept., Ottawa, Ontario K1A-0B1.

JAMAICA—The Water Commission, 28 Church St., Kingston, is planning the construction of **new headquarters** estimated to cost some $1.1 million. The building will house all the facilities of the Commission and provide rental space for the National Water Authority. Financing has not been arranged yet, but the World Bank has intimated its interest.

INDIA—The Government of India has applied for loans from the World Bank and the International Development Assn. for the following projects: **Power transmission facilities** (State electricity boards, $80 million). S. N. Vinzie, Ministry of Irrigation and Power Joint Secretary, Sharam Shakti Bhavan, Rafi Marg, New Delhi 1, is in the final stages of negotiating a loan agreement with IDA to promote facilities in six states—Kerala, Mysore, Tamilnadu, Madhya Pradesh, Orissa, and Assam. Mr. Vinzie said he expects lightning arrestors, shunt capacitors, and possibly switch gears to be imported and noted that, particularly for sale of lightning arrestors, U.S. firms should be able to offer competitive prices. International tenders are expected to be issued shortly after the loan agreement is signed. **Industrial imports** (Government of India, $75 million). Joint Secretary M. R. Shroff, Ministry of Finance, Dept. of Economic Affairs, North Block, New Delhi 1, says imports probably will include tractors and power tillers; fertilizers; pesticides; motors, transformers, switch-gears, and magnetic steel stampings; aluminum smelting; commercial vehicles, automotive ancillaries; machine, cutting and small tools, and abrasives; ball and roller bearings. Emphasis for imports under the new loan would be on spare parts and components previously bought in the U.S. under AID program loans. Further, the Government of India is asking the Bank to raise the loan allocation to $100 million to allow for purchases of more earth-moving equipment, both new machines and spare parts, and the preferred source of supply is the U.S. **Rajasthan Canal area development** (State Government of Rajasthan, $40 million). According to Kailash Narayan, Director, Central Water and Power Comm., Ministry of Irrigation and Power (address above), about half this loan will be used for imported equipment and the remainder for local cost financing. The money will be spent in Ganganagar, the northernmost district of Rajasthan which thus far has benefited most from construction of the Rajasthan Canal. Most of the foreign exchange component will be used for import of leveling equipment (scrapers and large tractors not now manufactured in India, as well as spare parts). Negotiations for this loan are not expected to be completed for another six months. **Agricultural credit for Uttar Pradesh** (ARC and State Land Development Bank, $30 million) and **Tawa Irrigation** (State of Madhya Pradesh, $43 million). Central Water and Power Commission Director Kailash Narayan notes that while the portion of the loans used for imports probably will be less than 50 percent, U.S. suppliers should be able to profit from a large proportion of the foreign currency component. **Nangal Fertilizer Plant expansion** (Fertilizer Corp. of India, $55 million). According to N. K. Sreenivasan, Joint Secretary of the Ministry of Petroleum and Chemicals, Shastri Bhavan, Dr. Rajindera Prasad Rd., New Delhi 1, this loan is in the final stages of negotiation. The Nangal fertilizer factory expansion will involve conversion of the plant from electricity to fuel oil as a feed stock. Total cost of the expansion, which will triple Nangal's capacity for production of nitrogen from 240 to 720 m.t. per day, is estimated at $100 million. The Chief Engineer at the Nangal Plant says that plant and equipment for steam generation, air separation, nitrogen wash and various types of heat exchanges and compressors will be imported. Most of this equipment would be imported separately under package deals for each type. Global tenders will be issued shortly after the loan agreement is finalized, in accordance with World Bank requirements. The nationwide fertilizer shortage has made the Government of India anxious to begin the Nangal expansion. The Fertilizer Corp.'s Planning and Development Div., Sindri (Bihar) will be responsible for issuing tenders.

UNITED KINGDOM—Christopher Chataway, Minister for Industrial Development, announced that the U.K. will spend $15 million on **building new factories in the Regional Development Areas.** These buildings are called advance factories, because they are built first and occupants are sought afterwards. More than 50 buildings are to be constructed over the next two years. Detailed information about the benefits and financial assistance is available to firms that wish to establish themselves in these Regional Development Areas from the Commercial Sec., British Embassy, 3100 Massachusetts Ave., NW., Washington, D.C. 20008. U.S. firms are particularly sought after. American suppliers of basic factory equipment such as space heaters and water, electrical and lighting systems and equipment may wish to contact the Industrial Estate Corporations which are in direct charge of the building program: English Industrial Estate Corp., Team Valley, Gateshead, Co. Durham NE11 ONA; Welsh Industrial Estate Corp., Treforest Industrial Estate, Pontypridd, Glamorgan, Wales; and Scottish Industrial Estate Corp., 3 Woodside Pl., Glasgow, C.3., Scotland.

CANADA — Canadian Industries Ltd. (CIL) has confirmed that it will build a **C$30 million chlorine and caustic soda plant** at Becancour. Construction will begin this year, with completion scheduled for 1975. The new installation will produce 140,000 tons of liquid chlorine and 154,000 tons of caustic soda per year. It will utilize the latest process technology involving diaphragm cells and be designed to meet the highest safety and environmental protection standards. J. W. Southern, Supervising Engineer of Project Services at CIL, says tenders will be called by invitation and, when possible, bids will be accepted only from firms located in Quebec. However, much of the equipment will be of U.S. origin. American firms with established reputations in this field may communicate with Mr. Southern at Canadian Industries Ltd., 630 Dorchester Blvd. West, Montréal 101.

MACAO—Harbor engineers from Lisbon arrived in Macao to study the feasibility of building **a seaport on the island of Coloane,** as requested by the Macao Provincial Government. The scheduled completion of a bridge in 1973 will give Coloane a direct land link to Macao proper. The first stage of the scheme will cost $16 million and will provide a port capable of handling six 15,000-ton freighters and tankers by 1974, and twelve such ships when completed in 1979. Container and repair berthing financing will be arranged by the Portuguese Government, but foreign capital will also be necessary. Mr. J. Mascarenhas, Director of Public Works, Macao, is directing this project.

CAYMAN ISLANDS—The construction industry is entering a breathing spell before its next expansion phase. The best bet for new construction in 1973 is for **new administrative offices for the Government.** Contracts probably will go to British firms. Under consideration is **a new terminal building** at the Owen Roberts Airport to replace the wooden building which has become too small for the growing numbers of tourists. The major obstacle is financing. The **Governor's Harbour development** recently received a needed injection of new capital, and teh tempo of work on this 450-acre housing development maypick up. The Commonwealth Development Finance Co. of Great Britain has purchased a 50 percent interest in the project from an American investor and with new seed money, now has invested almost $1.6 million. The other 50 percent is retained by Standard Dredging of New York. The project manager under the new arrangement is R. H. Pollard, who is in charge of the consortium's daughter construction company, First Cayman Building Development Ltd., P.O. Box 649, Rm. 1, Thompson Bldg., Georgetown, Grand Cayman. The firm is building the infrastructure—roads, sewage, sea walls, golf course, and preparing individual homesites as well as plots for a hotel and a shopping center. A smaller scheme consisting of building lots, roads and waterways is in preparation. Called **North Sound Estates,** this subdivision is being developed by Grand Cayman Estates Ltd., P.O. Box 149, Georgetown, Grand Cayman. **Major public works** in various stages of discussion include new roads, sewage and water systems (non-existent now) and construction of new harbour and port facilities. These much needed services are far from implementation, but U.S. firms may write Stewart Cook, Chief Engineer, Public Works Dept., Georgetown, Grand Cayman, B.W.I. The North Sound Development Co. Ltd., P.O. Box 491, Frand Cayman, has been plumping for a proposed **airport-seaport complex.** Directors of the company envision derdging a deep water passage through the North Sound from the ocean. Rock dredged out of the Sound could be used as landfill to build a 10,000 foot airport unway. A ship turn-around and piers would also contribute to making the project an importatn maritime facility.

JAMAICA—The Government of Jamaica **is extending the facilities at the Victoria Jubliee Maternity Hospital** with the construction of a six-story building costing $1.8 million. The new structure will provide an additional 150 beds. Facilities will be provided for the total separation of doctors and nurses from the public, with special arrangements for delivery. There will be a school for midwifery and medical offices on the ground floor. The second floor will be for delivery and first-aid and the remaining floors will contain 50 beds each and an obstetric ward. In addition, one of the existing wings of the hospital is to be remodeled to provide a six bed intensive care area and an operating theatre. The other existing wards are to be refurbished. Developers: Ministry of Health & Environmental Control, 21 Slipe Pen Rd., Kingston. Architects: Wilson Chong & Assoc., 28 Roosevelt Ave., Kingston 10. Contractors: Westminister Development Co., 5 Worthington Ave., Kingston 5.

THAILAND—The Thai Government, in an attempt to develop an improved **major deep seaport** adequate for foreign-trade shipping, has been evaluating the feasibility of three alternative plans: expansion of the Port of Bangkok conversion of the Port of Sattahip, and development of a new port at Laemchabang, in Cholburi Province. The feasibility study of the third alternative plan, recently completed by the Netherlands Engineering Consultants of Holland (NEDECO), is the favorite. Laemchabang, located some 120 kilometers southeast of Bangkok, is estimated to cost $50 million. It will be equipped with modern cargo loading-unloading storage, and handling facilities, including sophisticated containerized cargo handling. World Bank or Asian Development Bank loans will be sought. The Thai Government may also consider proposals from private investors for a contract award in exchange for an operating franchise for the port. Interested U.S. firms should write for additional information to: Dr. Sirilak Chandrangsu, Under-Secretary of State, Ministry of Communication, 5 Rajdamnern Ave., Bangkok.

BRAZIL—The city of Salvador is considering a **monorail system**, but does not have any definite construction plans. A delegation from the Mitsubishi group visited Salvador in September to promote the sale of a monorail system. They prepared a feasibility study and left behind voluminous information concerning their product. The mayor is impressed with the study and remains very interested in the possibility of installing a monorail system. He requests information from U.S. engineers, suppliers and builders, so that if he should decide to open bidding he will have an idea of both U.S. and Japanese specifications, prices and other terms. Write: Dr. Elcio Trigueiros, Secretario de Viacao e Obras, Publicas da Prefeitura Municipal de Salvador, Rua do Tesouro, 40000 Salvador, Bahia.

CANADA—Minister Donald S. MacDonald, Dept. of Energy, Mines and Resources, has announced that the Government of Canada will offer C$1.55 million in financial assistance to Nova Scotia and New Brunswick to improve the **electrical transmission connection** between the two provinces. At present there is a 138-kv. system that is inadequate because of the growing energy needs of both provinces. A proposal was made for an interconnection of 345-kv. that is more than enough for immediate future needs. The Federal Government is also studying the possibility of providing financial support to Prince Edward Island for an **underwater cable connection** between the island's electrical system and the Maritime Power Pool.

KOREA — Government plans call for Korea to become **one of the top ten shipbuilding countries** in the world by 1976, with a planned annual capacity for Korean yards of 1,300,000 gross tons. In 1972 total Korean building capacity for all types of vessels was 190,000 gross tons, and actual production of steel vessels was only 46,000 gross tons. The industry took a quantum jump forward, however, with the receipt of foreign orders for eight tankers ranging from 20,000 dead-weight tons to 259,000 deadweight tons. In addition, the country's first vessel in excess of 10,000 gross tons was launched. A new yard is being built to construct two mammoth tankers, and facilities at what is now Korea's largest shipyard are being improved to handle the six smaller vessels on order. Also, two larger yards are under consideration and one aluminum gunboat yard is being built by an American investor. There will be a continuing requirement for ship propulsion machinery, pumps, paint, navigational aids, electrical equipment and other ship's furniture, since full domestic production is not expected for several years. While new yards are being built, materials handling equipment, drafting, cutting, bending and welding machinery with associated control instruments will be needed. As Korean shipbuilding operations essentially will be assembly only, demand for machine tools will be limited. Financing remains a major consideration, and there still appears to be room for U.S. investment in the Korean shipbuilding industry. Information on export contracts received, yard expansion projects, mergers suggested, estimated funding requirements, and a list of Korean shipbuilding firms, are available from the U.S. Department of Commerce, Trade Opportunities Sec., BIC-267, Washington, D.C. 20230.

CANADA — Goodyear of Canada announced that its Valleyfield, Quebec plant will **be expanded to manufacture steel radial tires** for passenger cars and trucks, to cost C$56 million. Construction was to start in April and be completed by 1975. The plant now manufactures passenger, truck and earthmover tires of conventional design. The Government of Quebec has agreed to provide C$5.5 million toward the cost of financing the new construction. A Goodyear spokesman stated that tenders will be by invitation, but that U.S. contractors and suppliers wishing to participate in the project should communicate directly with Harry Johnston, General Purchasing Agent, Goodyear Tire & Rubber Co. of Canada Ltd., 3050 Lake Shore Blvd. West, Toronto 14, Ontario (416-252-4441).

LIBYA—The Swedish firm, Skanska, has been awarded a contract for the supply of materials and equipment for the **construction of the INAS hospital in Benghazi.** The hospital will comprise 480 beds, a basement and five floors above ground; it will be a general hospital and will have operating rooms including X-ray facilities. Skanska is working with Planning Associates of Rome on this project. The latter organization, according to Skanska, will build the hospital while Skanska will equip and supply it with all building materials as well as medical equipment. The total cost of building and equipment is SKr. 112 million ($1 = SKr. 4.52). Ground was broken in January, with completion due by the end of 1975. The following building materials will be needed: felt roofing and damp roofing; rigid insulation materials (cork & polystyrene); ceramic tiles (floor & wall); vinyl (floor & wall coverings); suspended ceilings; caulking compounds; wrought iron shapes and forms (finished); doors and windows (metal & wood); millwork (wood: handrails, cabinets & fittings); building glass. Address requests for further information to: Claes Ohlsson, International Div., AB Skanska Cementgjuteriet, S-201 10 Malmö 1, Sweden. Phone: Malmö Area Code: 040/14-40-00. Cable address: Skanska, Malmö.

CANADA—Northern Electric Co., Ltd., a wholly-owned subsidiary of Bell Canada, has announced a C$11 million program **to diversify its principal Montreal factory into seven modern plants.** The firm makes telephone sets and a wide range of communication type electronic equipment, for which Bell Canada is the major customer. The modern plants, all of which will be in the greater Montreal area, will give the firm room to grow and develop new products. The new plants, identified briefly by the products they will turn out, with their size are: metal fabricating work (300,000 sq. ft.); multiplex equipment (120,000 sq. ft.); transmission apparatus (components for radio transmission systems) (120,000 sq. ft.); radio transmission systems (70,000 sq. ft.); relays (50,000 sq. ft.); electronic equipment (components, modules, etc.) (50,000 sq. ft.); switchboard equipment (40,000 sq. ft.). The relay plant is expected to be in production by August, and that for multiplex equipment in October. The schedule for the others has not yet been established. The plants, without equipment, will be leased whenever possible. Names of the developers and general contractors have not been disclosed. Tenders, when called, will be by invitation since Northern Electric buyers are familiar with most sources available to them. However, reliable U.S. suppliers wishing to propose their equipment should write directly to J. G. Burrows, Work Service Manager, Northern Electric Co. Ltd., Dept. 7630, 1261 Shearer St., Montreal 104, P.Q. (514-933-8641, Ext. 128).

JAMAICA—Desnoes & Geddes Ltd. have announced that they will **enlarge their beer manufacturing plant** to facilitate the making of Heineken beer under license from Heineken of Holland. The initial capital outlay is for setting up a single assembly line to produce between 35,000 and 40,000 cases a year, which is the present demand. The market is expected to increase to between 300,000 and 500,000 cases within the next three years. This project is scheduled to start production in 1973. A new company, Heineken Jamaica Ltd., has been formed in association with Heineken of Holland to take over this distribution. The project offers supply opportunities for large lager maturation vats, bottling equipment and materials handling equipment. Paul Stockhousen, Desnoes & Geddes Ltd., 214 Spanish Town Rd., Kingston 11, can be contacted for information.

OMAN—**Two new hotels**, one luxury and the other first-class, will quadruple Muscat's hotel capacity by 1975. A new Gulf hotel and another constructed by SOGEX, Beirut, Lebanon, and probably managed by a U.S. firm, will be built at Qurum on the coastline between Muscat and Sib International Airport. The Gulf hotel will be financed by Gulf Aviation (partially owned by the Government of Oman) and Wimpey's Construction (U.K.), and the SOGEX hotel by the Oman Government, with some advance and working capital guaranteed by Chase Manhattan. Plans for over 600 first-class and luxury hotel rooms in Muscat by 1975 are ambitious, but fit the pattern of expansion set by Port Qaboos, the Sib International Airport, and an expanded network of hard-surface roads which will link the coast and interior Oman with Abu Dhabi and Dubai.

HONG KONG — The following preliminary information on major projects for Hong Kong may interest U.S. firms: The Hong Kong Government announced that $1.06 million has been approved in principle to cover a long-term planning study of Hong Kong's **air transport system.** The study would take about 15 months to complete and the consultant firm selected would examine, against the background of probable growth in air traffic and technological development, the adequacy of existing or planned facilities, and, if pertinent, would determine what action should be taken. The Government may approach China on resumption of through-passenger service between Hong Kong and Canton, as well as **improved communications, including railway services.** The press previously had reported Government interest in the possibility of adding a second track to the Chinese border. The Director of Public Works, J. J. Robson, announced that the Government was reviewing two alternative projects: **a second underwater tunnel** ($88.5 million) or a bridge ($17.7 million). Any bridge in the area of Kai Tak Airport should not be more than 220 feet high, and the bridge should not block shipping. Growth of population and vehicles indicates that a four-lane harbor crossing, in addition to the tunnel opened in 1972, will be required by 1986. Consulting engineers are expected to submit a feasibility study ("Long Term Road Study") in May on construction of a **road-tunnel linking Happy Valley and Wong Chuk Hong** (both on Hong Kong Island). An English firm, Mausell Consultants, Asia, were consultants for the proposed project, which would cost about $10 million.

ARGENTINA—In early 1972 Cia. Minera Aguilar S.A., Viamonte 1133, Buenos Aires (St. Joe Minerals Corp.), announced its discovery of a large copper deposit at Pachon in a remote area of San Juan Province. Minera Aguilar is cutting a 120-kilometer road to the site through very difficult terrain. High snow covers the area for eight months of the year. The road will permit movement of heavy equipment to the location and permit continued exploration in order to prove the reserves and undertake preliminary underground exploration. The operation will be open pit when begun. The development of these reserves will require an investment on the order of $150 million. Great amounts of all types of mining equipment will be required. Direct exploitation is probably about two years off, but sophisticated test drilling equipment will be needed in the near future, along with ancillary exploration equipment and material. U.S. suppliers of all types of mining and excavation machinery should contact the St. Joe Minerals Corp., 250 Park Ave., New York, N.Y. 10017 and Mr. Wing Lew, President, Compania Minera Aguilar.

NETHERLANDS—The Dutch-West German steel combination Estel N.V. Hoesch-Hoogovens has decided to **increase the steel capacity at Ijmuiden** in Noord Holland province by 600,000 tons per year. The present capacity is 6 million tons. With this expansion Estel's capacity for steel production will be sufficient until 1975-76. The expansion plan will require an investment of 115 million guilders and a relatively small number of additional staff, namely 220 persons. The board of directors has further approved rationalization and replacement investments to an amount of 142 million guilders, of which 99 million is destined for Hoesch Werke A.G. and 43 million for Hoogovens in Ijmuiden. Construction of an 86-million-guilder sister plant in Dortmund also has been approved.

CANADA—Shell Canada Ltd., 505 University Ave., P.O. Box 400, Terminal "A", Toronto 1, reportedly is ready to enlarge its **oil recovery program in Alberta.** The company is considering a $500 million oil sands recovery plant to be built 45 miles north of Fort McMurray within the next two years. The company proposes to drill 125 test wells in this area to further define its oil sands reserves. The project requires the approval of Alberta's Energy Resources Conservation Board. Once a final decision has been reached, construction should start immediately, with the production of synthetic crude expected to reach 100,000 barrels a day by early 1979. Shell officials at Calgary state that no decision has yet been made on the mining method to be employed. Shell also plans to continue exploration and development work in other areas, and is studying the possibility of constructing an "in-situ" **extraction pilot plant** on a lease of 175,000 acres in the Peace River oil sands area about 40 miles north-east of the town of Peace River. Great Canadian Oil Sands, Ltd., 85 Bloor St. East, Toronto 5, a company controlled by Sun Oil Ltd., to date has the only commercial production of synthetic oil from the Athabasca fields, and it hopes to receive approval from the Energy Resources Conservation Board to increase production from the present authorized daily average of 40,000 barrels to 65,000 barrels. Syncrude Canada Ltd. (controlled by Imperial Oil, Atlantic Richfield, Cities Service, and Gulf Oil) proposes to construct a **$400 million extraction plant** in the Fort McMurray area, and hopes to be producing 125,000 barrels daily by 1978.

JAMAICA — Lewis Berger (West Indies) Ltd. has announced plans to build a $600,000 **latex resin plant** in Kingston. The designing and contracting for the plant expansion will be handled by Hoechst's Chemical Group of West Germany. The designers probably will favor German equipment, with which they are familiar. However, there should be additional and continuing supply opportunities for substantial quantities of vinyl acetate and butyl acrylate and other raw materials from U.S. suppliers. Developers: Lewis Berger (West Indies) Ltd., 256 Spanish Town Rd., Kingston 11, Phone: 923-6226. Contractors & Designers: Hoechst Chemical Group, Frankfurt-am-Main, West Germany.

CANADA — Plans have been announced for a **355-bed general hospital** to be built in Laval, one of the communities of Greater Montreal. It will be a teaching hospital affiliated with the University of Montreal, and will emphasize services to out-patients, with facilities to handle some 50,000 such patients a year. It will be built at a cost of C$17 million by the Cite de la Sante Corp., 3 Place Laval, Laval, P.Q. Architects are Beaudouin, Sauriol, Moreau, Desrochers and Dumont, Suite 355, 3 Place Laval, Laval, P.Q. (514-669-7188). Tenders for equipment for the new hospital are expected to be called early in 1974. In the meantime, suppliers wishing to propose their equipment may do so by communicating directly with Real Ferland of the architectural firm.

COLOMBIA—The CVC (Cauca Regional Development Corp.), Carrera 3 No. 16-60, Apartado Aereo #2366, Cali, Valle, has worked out plans for construction of a **133-meter dam on the Cauca River** at Salvajina, and a **series of 1.5 to 2.5 meter dikes** along the river below the dam. Drainage canals and pumping stations will also be employed to prevent future flooding in flood-prone areas. The Salvajina Dam is envisaged as creating a water storage system of some 500 million cubic meters of water. The dam will also include a hydroelectric power system with a capacity of 210,000 kilowatts via three units of 70,000 KW each. In addition, double circuit transmission lines will be constructed from the dam some 50 kilometers to Pance on the southern edge of the city of Cali. The costs of the project are tentatively calculated as follows: dam and storage $34.7 million; electric plant $16.5 million; dikes $16.4 million; drainage works $23.0 million; transmission lines $1.5 million. CVC is seeking about $60 million in external financing for the project. U.S. contractors and suppliers who may be interested in investigating further should contact Henry Eder, CVC Director.

JAMAICA — The Urban Development Corp. (UDC), a Government of Jamaica statutory body, is preparing plans for a **deepwater pier at Oracabessa** and necessary infrastructure on 40 acres of land. The site is on Jamaica's north coast, stretching from Goldenhead Beach Hotel to Golden Eye. Oracabessa was for many years a leading banana port, but was abandoned three years ago following a strike of banana loaders there. Situated in St. Mary, where nearly 50 percent of Jamaica's bananas are grown, the new facilities are expected to handle some 60 percent of Jamaica's banana exports. The scheme is to include a new main road and the construction of condominium-type apartments and resort villas. The project presents opportunities for U.E. engineering firms to bid for contracts to dredge the channel and construct the pier, as well as supply materials handling equipment, building materials and furnishings. For further information contact: Gloria Knight, Urban Development Corp., 40 Harbour St., Kingston, Jamaica.

BRAZIL—The Ministry of Education has allocated $120 million for purchases of all types of **advanced educationoal equipment** under the program of expansion and improvement of higher education. The Ministry of Finance still has to approve the proposed allocation and a final decision on the budget for the program is expected within the next few months. The program will give priority to equipment purchases for health, technical studies (engineering), education, and agricultural sciences. Most purchases will be made through international tender. Universities, however, can purchase equipment under the program without calling for international bids if they order directly from the manufacturer, thus eliminating added costs from middlemen. U.S. manufacturers of equipment for use in higher education should send their catalogs, with prices, directly to the Federal universities or institutions of higher learning having faculties which could use their equipment. Names and addresses are available from the U.S. Department of Commerce, BIC-267, Rm 1322, Washington, D.C. 20230.

LIBERIA-SIERRA LEONE — The two Governments are prequalifying construction contractors for the construction of **roads and a bridge connecting Tienne, Liberia to Fairo, Sierra Leone.** A single, unit-price contract will be let for all procurement and erection. Prequalification will be open to any qualified contractor legally incorporated or registered in a country which is a member of the African Development Bank (ADB) or the International Bank for Reconstruction and Development (IBRD). No firm included on the list of suspended, debarred or ineligible bidders maintained by the ADB or IBRD is eligible to participate in any way. To qualify for invitation to tender, contractors must demonstrate satisfactory experience on projects of similar kind and size, financial capacity and ability to complete the project on time. The project will consist of: Approx. 5.9 miles of lateritic materials surfaced road starting at Tienne and ending at the Mano River; Approx. 6.8 miles of lateritic materials surfaced road starting at the Mano River and ending approx. one mile west of Fairo; A 580 ft. long, dual lane, continuous composite welded steel girder, concrete deck bridge over the Mano River at Bo, Liberia, into Sierra Leone. Request prequalification documents (enclose brief statement of organization, financial capacity and experience) from Lyon Assoc., Inc., 6707 Whitestone Rd., Baltimore, Md. 21207. Attn: J. E. Traylor, V.P.

MALAGASY REPUBLIC — The Societe pour le Developpement Economique de la Region de Morondava (SODEMO) was established last year by the Malagsy Government to administer a $27 million **Morondava Irrigation and Rural Development Project** which is being assisted by a $15.3 million IDA loan. The first phase of the project involves developing a 2,700-hectare sprinkler irrigation system for tobacco and peanut cultivation and a 6,600-hectare gravity-feed irrigation complex for rice and cotton. A German engineering consultant firm (ANT-SATEC of Essen) is designing the final plans for the sprinkler system. Tenders for the supply of overhead sprinkler equipment will be issued during the next four months. The gravity-feed irrigation system will be designed and built by the Malagasy Government. In order to assist with this work, engineers from ANT-SATEC will be hired on a contract basis. For additional information, contact: Pierre Rakotoarison, Directeur, Societe pour le Developpement Economique de la Region de Morondava (SODEMO), Ministere du Developpement Rural, Anosy, Tanarive.

CANADA — The City of Montreal has called for its first tender for the excavation of the **Olympic Center.** Plans for the Olympic Center, which are available in French only, are subject to change as the Olympic works program unfolds. The first building to be constructed will be the velodrome, since it will have to be ready for the world cycling championships in Montreal during the summer of 1974. Tender announcements can therefore be expected in April or May. The 70,000-seat Olympic stadium and the adjoining swim hall will be let out for tender later. Since the expected lead time will be 30 to 60 days between the submission of these Olympic tenders and their bid deadlines, U.S. firms interested in the current project or ones to follow should contact Claude Phaneuf, Chief Engineer, Olympic Park Div., Public Works Dept., 755 Berri St., Rm 191, Montreal 514, (514/872-6633).

KOREA—The Korean **petrochemical industry expansion** offers an opportunity for U.S. suppliers of machinery, equipment, instrumentation and technology, as well as investment. The government plans to construct six new petrochemical plants; an ethyleneglycol plant, and octonal, butanol, phenol, aniline and polypropelene glycol plants. Applications for the construction of these facilities at Ulsan will be accepted until June 30. U.S. firms should make their interest known to the Office of Supply, Government of Korea (OSROK), Seoul. A report from the American Embassy in Seoul, giving further information on petrochemical industry expansion plans, is available from the U.S. Department of Commerce, Trade Opportunities Sect., BIC-267, Rm 4813, Washington, D.C. 20230.

GERMANY — Plans to **deepen the navigable channel of the Elbe River** between Hamburg and its mouth, a distance of some 65 miles, have been approved. The river, which presently has a depth of 39 feet at mean low tide, will be dredged to a depth of 44 feet. The project will cost an estimated DM 430 million (of which the Federal share is DM 350 million and Hamburg's DM 80 million) and will take five to six years. The "Wasser und Schiffahrtsdirektion Hamburg," an office of the Federal Ministry of Transportation, is in charge of the project for the length of the river between the Hamburg State boundary and the mouth of the river at Cuxhaven. The "Behoerde fuer Strom und Hafenbau" of the State of Hamburg is responsible for the portion of the project in Hamburg and in the port. A tender for dredging equipment might be published. If so, the tender specifications will conform to the requirements of the European Community. Even should a tender not be published, there may exist the possibility for U.S. manufacturers of dredging equipment to make sales to the Federal and Hamburg governments.

PERU — ENAFER, the new state railways corporation, announced a $40 million **rehabilitation program for Peru's railway system** over the next five years. Plans call for the renewal of track, purchase of new locomotives, renovation and increase in rolling stock, the construction of workshops, the redesign of shunting yards, the installation of a new signaling system and mechanization of cargo handling. $25 million will be spent on foreign purchases and $15 million will be expended locally. U.S. firms interested in supplying railway equipment should write directly to German Tito Gutierrez, general manager, ENAFER PERU, Ancash 201, Lima.

NETHERLANDS—Van Gestel N.V., Mr. J. J. H. Van Gestel, Jan de Rooystraat 15 A, Kaatsheuvel, Tel: 04167-2931, Telex 50244, is a plastic products importer and exporter, wishes to start within one year on the construction of a **plant for the production of polyvinyl chloride (sheet film) and polypropylene.** The total estimated cost of the equipment is $5 million, which includes PVC processing equipment, extrusion equipment, film casting lines and PVC printing machines and other smaller equipment. Equipment financing is reportedly already arranged. Contact Mr. Van Gestel, President, directly for further details.

IRAN — The Industrial Credit Bank (ICB), Tehran (banking arm of the Government of Iran's Plan Organization), announced a number of **industrial projects** in the planning stage which might represent opportunities for U.S. suppliers of equipment and services. The World Bank is seriously interested in financial assistance to all of the projects. They are: Plant to produce 30,000 tons rayon viscose annually; Plant to produce some 3,000 tons aluminum foil annually; Tanning, curing, and processing 200,000 sheep and goat hides annually, to handle all phases of leather from basic processing to production of fancy leathers; Hand tools and power tools, including pneumatic tools, electric and gas welding equipment; Metal enameling facility involving production of some 10,000 tons of enamel annually; Building hardware, including locks, possibly using traditional Persian artistic designs, and all "high quality"; Mills for producing stainless steel galvanized sheets, tin plate, and special alloy steels; Paint pigments; High-tension ceramic insulators (3,000 tons annually); and, Facility to recondition automotive engines. ICB is primarily interested in procuring equipment and engineering services but is also open to licensing, technical assistance, and joint venture proposals.

CANADA—The New Montreal International Airport Project Office is planning to call for tenders for various **concessions and services at the airport** and will consider bids from U.S. firms. Projects include banking services, automobile service station, duty free shop, gift shop, book store. drug store, newsstand, candy store, flight insurance service, travel agency, public car park, rent-a-car agencies and parcel lockers. The statistical projection for passenger traffic at the new airport is close to four million in 1975, when the airport is scheduled to open, and increasing to 17 million by 1985. Firms interested in concession possibilities should write to the Head, Marketing and Commercial Development Planning, New Montreal International Airport Project Office, P.O. Box 427, Montreal 101, Quebec. Detailed information concerning individual concessions will be made available at future dates and any person or firm requesting information will be kept informed of the progress of the program, as well as the tender dates.

GREECE—The Thessaloniki Port Organization will soon begin construction of the planned $66 million **port expansion** over a fifteen-year period. The first phase is scheduled for completion by 1977 and will include construction of a sixth pier at a cost of about $17 million, of which $11 million is budgeted for equipment. Construction will be carried out by the Greek firm Xekte, and is planned to double the present five-million-ton annual capacity of the port. A government tender for equipment will be issued in 1974. However, the Director of the Port Organization requests early information on U.S.-made containerization facilities, cranes, and port installations for possible incorporation in the tender specifications. Port authorities are most interested in the latest U.S. containerization developments. Send brochures and specifications rather than price lists at this stage to: Spyridon Frangiskos, Director, Thessaloniki Port Organization, Thessaloniki.

New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its district offices.

DOMESTIC AND INTERNATIONAL BUSINESS ADMINISTRATION

BUREAU OF COMPETITIVE ASSESSMENT AND BUSINESS POLICY

Copper. Vol. 19, No. 2. Annual subscription $2 ($0.50 more for foreign mailing). Single copy $0.50.

BUREAU OF INTERNATIONAL COMMERCE

Export Market Digest

These series of reports are designed to aid the current or prospective U.S. exporter in analyzing potential foreign markets for specific products. Each series deals with a product category in which U.S. export potential is especially high:

Micrographics

The Netherlands (EMD 73-108). 6pp. 25¢.
Japan (EMD 73-111). 8pp. 25¢.

Pollution Control Equipment

Japan (EMD 73-201). 4pp. 25¢.

Medical Equipment

Mexico (EMD 73-202). 4pp. 10¢.

Frozen Food Production and Distribution Machinery

Japan (EMD 73-203). 4pp. 10¢.

SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION

BUREAU OF ECONOMIC ANALYSIS

Business conditions digest. Series ES1, No. 73-3. Annual subscription, including supplements, $33 ($8.25 more for foreign mailing). Single copy $3.25. This monthly report brings together many of the economic time series found most useful by business analysts and forecasters.

Defense indicators. Series ES4, No. 73-3. Annual subscription $7.50 ($2 more for foreign mailing). Single copy 75¢. The purpose of this monthly report is to bring together the principal time series on defense activity which influence short-term changes in the national economy.

BUREAU OF THE CENSUS

Congressional district atlas—districts of the 93d Congress. 358pp. Available over-the-counter at Government Printing Office Bookstores, $3.25; by direct mail (domestic), $3.70. This Atlas presents maps showing boundaries of the congresssional districts for the 93d Congress of the United States. The maps are arranged alphabetically by State.

Small-area data notes. Vol. 8, No. 4. Sold in combination with Data Access Descriptions at an annual subscription price of $5.50. Single copy price varies; this issue, 25¢.

Construction and Housing

Housing starts: February 1973 (C20-73-2). 20pp. Annual subscription $4.50 ($1.25 more for foreign mailing). Single copy 45¢.

Housing completions: January 1973 (C22-73-1). 10pp. Annual subscription $1. Single copy 10¢.

New one-family homes sold and for sale: January 1973 (C25-73-01). 18pp. Annual subscription $3. Single copy (monthly) 10¢; Single copy (annual) $2.

Authorized construction — Washington, D.C. area: February 1973 (C41-73-2). 4pp. Annual subscription $1. Single copy 10¢.

Housing vacancies—vacancy rates and characteristics of housing in the United States: annual statistics 1972 (Series H-111-72-5). 54pp. Annual subscription (Series H-111 and H-121 combined) $3.50 ($1 more for foreign mailing). This issue $1.

1970 Census of Housing

Metropolitan Housing Characteristics

San Juan, P.R.—standard metropolitan statistical area (HC(2)-248). 176pp. 55¢. Text and tables in Spanish and English.

Distribution and Services

Weekly retail sales. Estimated sales of retail stores for week ending March 31 (CB-73-87). 2pp. 15¢.

Weekly retail sales. Estimated sales of U.S. retail stores for week ending April 7 (CB-73-92). 2pp. 15¢.

Advance monthly retail sales: March 1973 (CB-73-90). 2pp. 15¢.

Foreign Trade

Imports—commodity by country: December 1972 (FT 135-72-12). 340pp. Annual subscription $46 ($11.50 more for foreign mailing). Single copy $4.

Exports—commodity by country: December 1972 (FT 410-72-12). 536pp. Annual subscription $72.50 ($18.25 more for foreign mailing). Single copy $6.25.

Puerto Rico and U.S. possessions: December 1972 (FT 800-72-12). 30pp. Annual subscription $5.50 ($1.50 more for foreign mailing). Single copy 45¢.

Export and import merchandise: February 1973 (FT 900-73-2). 6pp. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Airborne exports and general imports: January 1973 (FT 986-73-1). 4pp. 10¢.

Gold movements: February 1973 (FT 2402-73-2). 4pp. Annual subscription $1. Single copy 10¢.

Highlights of exports and imports: February 1973 (FT 990-73-2). 120pp. Annual subscription $11 ($2.75 more for foreign mailing). Single copy $1.

Governments

1972 Census of Governments. Vol. 2—taxable property values and assessment-sales price ratios: part 1—taxable and other property values. April 1973. 98pp. Available over-the-counter at Government Printing Office Bookstores, $1; by direct mail (domestic), $1.25.

Quarterly summary of State and local tax revenue; October-December 1972 (GT72 No. 4). 8pp. 25¢.

Industry

Annual survey of manufacturers: 1971—Part 9: Pacific Division (M71(AS)-6.9). 46pp. 25¢.

Titanium ingot, mill products, and castings: summary for 1972 (Series BDC-263(72)-13). 4pp. Annual subscription $1.50. Single copy 15¢.

Inventories of steel mill shapes: summary for 1972 (Series: M33-3(72)-13). 6pp. Annual subscription $1.50. Single copy 15¢.

Typewriters: summary for 1972 (Series: M35C(72)-13). 6pp. Annual subscription (incl. MA-35R) $1.75). Single copy 15¢.

Magnesium mill products: 1972 (Series: MA-33G(72)-1). 4pp. 25¢.

Fluorescent lamp ballasts: summary for 1972 (Series: MQ-36C(72)-5). 6pp. Annual subscription $1. Single copy 25¢.

Population

Summary of special censuses conducted by the Bureau of the Census between April 1, 1970, and December 31, 1972 (Series P-28, No. 1500). 6pp. 25¢.

Sources and structure of family income (PC(2)-8A). 510pp. Available over-the-counter at Government Printing Office Bookstores, $4.25; by direct mail (domestic), $4.80.

1970 Census of Population and Housing

Test of birth registration completeness: 1964 to 1968 (PHC(E)-2). 12pp. Available over-the-counter at Government Printing Office Bookstores, 20¢; by direct mail (domestic), 30¢.

Transportation

1972 Census of Transportation

Spring travel (TC72-N1). 96pp. Available over-the-counter at Government Printing Office Bookstores, $1; by direct mail (domestic), $1.25.

Truck Inventory and Use Survey

Georgia (TC72-T11). 24pp. 35¢.
Utah (TC72-T45). 24pp. 35¢.
Virginia (TC72-T47). 24pp. 35¢.
Wyoming (TC72-T51). 24pp. 35¢.

ECONOMIC DEVELOPMENT

ECONOMIC DEVELOPMENT ADMINISTRATION

Economic development. Vol. 10, No. 4. Annual subscription $2 ($0.50 for foreign mailing). Single copy 35¢.

SCIENCE AND TECHNOLOGY

NATIONAL BUREAU OF STANDARDS

Photonuclear reaction data, 1973 (Spec. Publ. 380). 132pp. Available over-the-counter at Government Printing Office Bookstores, $1.75; by direct mail (domestic), $2.10. A brief summary is given of the available data on the gross features of photonuclear giant resonance.

Optical radiation measurements: the impact of radiometry and photometry and the role of NBS (Tech. Note 594-4). 56pp. Available over-the-counter at Government Printing Office Bookstores, 55¢; by direct mail (domestic), 80¢. Serious measurement discrepancies universally plague quantitative measurement in the electro-optics industry. The impact of the resulting problems is reviewed, and the role of NBS explored.

On the utility of the m-6-8 potential function (Tech. Note 628). 78pp. 70¢. The calculation of transport and equilibrium properties of simple gases with the m-6-8 potential function is discussed.

Frequency stability specification and measurement: high frequency and microwave signals (Tech. Note 632). 70pp. 65¢. This report gives concise definitions for specifying frequency stability for measurements in the frequency domain and time domain. Standards of terminology and of measurement techniques are recommended.

Critical two-phase flow for cryogenic fluids (Tech. Note 633). 80pp. 70¢. This work presents a state-of-the-art survey intended to be useful to a designer of equipment involving two-phase flow of cryogenic fluids.

Methods of measurement for semiconductor materials, process control, and devices: quarterly report—July 1 to Sept. 30, 1972 (Tech. Note 754). 54pp. Available over-the-counter at Government Printing Office Bookstores, 55¢; by direct mail (domestic), 80¢. This quarterly progress report describes NBS activities directed toward the development of methods of measurement.

A users' guide to the OMNITAB command "STATISTICAL ANALYSIS" (Tech. Note 756). 44pp. Available over-the-counter at Government Printing Office Bookstores, 50¢; by direct mail (domestic), 75¢. This command (and several others) gives automatic printout of a variety of statistics computed from a set of observations. The interpretations of these statistics and their uses are described in some detail.

Description of the magnetic tape version of the Bulletin of Thermodynamics and Thermochemistry, No. 14 (1971) (Tech. Note 760). 52pp. Available over-the-counter at Government Printing Office Bookstores, 50¢; by direct mail (domestic), 75¢. The substance-property index and bibliography sections of the Bulletin of Thermodynamics and Thermochemistry, No. 14 (May 1971) have been converted to a magnetic tape version designed for computerized searching written in an extended form of the American National Standard Code for Information Interchange (X 3.4-1968).

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢) unless otherwise specified.

The sensitivity of portions of the human central nervous system to "safe" levels of microwave radiation (AD-756 608). Rand Corp., Santa Monica, Calif., paper copy $3.75, 33pp. Examines possible biological effects of low-level microwave radiation, and discusses possibility that the human vestibular apparatus (the inner ear) may be responsive to low-level microwave radiation via indirect, caloric stimulation.

State-of-the-art for assessing earthquake hazards in the United States. Report I: design earthquakes for the Central United States (AD-756 447). U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss., January, paper copy $4.50, 59pp. Discusses the earthquake risk problem in the Central United States; reviews seismic history of the area, and divides the area into various seismic regions; and specifies a design earthquake (largest earthquake that can be expected to occur within an area) for each of the three seismic regions. Report is intended for use by civil engineers who construct dams and reservoirs.

Geothermal energy (PB-216 423). University of Alaska, Fairbanks. Paper $4.85, 93pp. Presents results of a Geothermal Resources Research Conference held September 18-20, 1972. Topics covered are: resource exploration, resource assessment, reservoir development and production, utilization technology and economics, environmental effects, and institutional considerations.

Symposium on energy, resources, and the environment (PB-216 836). Mitre Corp., McLean, Va., paper copy $12.50, 507pp. Proceedings of the Symposium on Energy, Resources, and the Environment (ERE) held May 12-14, 1972, at the Salines de Chaux Conference Center, Arc-et-Senans, France. Panel sessions include: international issues; plowshare opportunities and potential; ERE interrelationships; European overview; and general summary and discussion.

Narcotic-explosive detector dogs (AD-756 939). Southwest Research Institute, San Antonio, Tex., 17pp. Studies feasibility of training dogs to search for and detect odors of nitroglycerine, dynamite, TNT, C-3, C-4, a mixture of 96% ammonium nitrate fertilizer and 4% JP4 fuel oil, smokeless powder as contained in exploded cartridges, and heroin (pure and cut 50%).

Population and economic activity in the United States and standard metropolitan statistical areas—historical and projected, 1950-2020 (PB-216 607). U.S. Dept. of Commerce, Washington, D.C. Paper, $6. 544pp.

Forecast of air traffic demand and activity levels to the year 2000 (PB-216 252). Helliesen and Eichner, Inc., Washington, D.C. (rev. March 1972). Paper copy $6. 347pp. Projects unconstrained passenger enplanements and departures of a conventional system by geometric area. Report covers critical planning assumptions and air passenger, air cargo, general aviation, and military forecasts.

The national aviation system plan, 1972-1981 (AD-756 580). Federal Aviation Admin., Washington, D.C. 205pp. Covers route control and services, terminal area control and services, flight services, airspace allocation and rules, enroute navigation, landing aids, system support, airports, manpower, environmental research and development, and general research and development.

Social aspects of urban water conservation (PB-214 970). Century Research Corp., Arlington, Va. Paper, $6. 175pp. Discusses socially acceptable strategies that will effectively conserve domestic water during emergency shortage conditions.

Emerging aerospace materials and fabrication techniques (AD-755 371). Air Force Materials Lab., Wright-Patterson AFB, Ohio. Paper, $5.45. 111pp. Discusses metals and alloys, seals and sealants, coatings and finishes, fibers and filaments, resins and adhesives, and miscellaneous materials. Proven or potential applications, limitations, and availability of the materials are described.

A citizen's guide to clean air (PB-215 801). Conservation Foundation, Washington, D.C. Paper, $4.85. 92pp. Provides basic information about air pollution, along with suggestions about citizen participation and the opportunities open to those who want to influence clean-up efforts in their own communities.

Impact of business jets on community noise exposure (PB-215 531). Bolt, Beranek and Newman, Inc., Canoga Park, Calif., 27pp.

Forecast technological probabilities (PB-215 888). Northrop Airport Development Corp., Vienna, Va. Paper, $6.75. 278pp. Assesses state of the art and estimates technological probabilities (1975-2000) as they bear on each of the aviation subsystem elements and on surface modes of transportation which interface with the airport.

Impact strength and toughness of fiber composite materials (AD-753 101). Illinois Institute of Technology. 55pp.

Survey of capital budgeting practices in business firms and military activities (AD-752 013). Naval Postgraduate School. 83pp. Paper, $4.85.

Physical characteristics of the giant planets (N72-29834). 'Nauka' Press of the Kazakh SSR. Translated from the Russian. 227pp. Comprehensive information about physical properties of the atmospheres and internal structure of the giant plants (Jupiter, Saturn, Uranus, and Neptune). An extensive guide to literature on the giant planets is included.

Packaged circuits (AD-752 400). Defense Documentation Center. 151pp. DDC bibliography (with abstracts) containing references on such topics as development of principles and techniques of integration and packaging of printed circuits, packaging concepts for uncased integrated circuit systems, advanced electronic packaging techniques, packaging a 30 mc amplifier for airborne use, and packaged magnetic digital computer assemblies. All reports listed are available from NTIS.

Elements of a national materials policy (PB-213 780). National Materials Advisory Board, National Research Council, Washington. 83pp. Paper, $4.85. Discusses seven major issue areas considered central to formulation of a coherent and durable national materials policy: (1) abundances of mineral commodities and problems affecting future primary supplies; (2) implications of environmental protection policy for national materials policy; (3) recycling, substitution, synthesis, and design; (4) extractive metallurgy and mineral processing; (5) governmental incentives and controls; (6) international implications of materials policy issues; and (7) manpower facilities.

☆ U.S. Government Printing Office: 1973—511-348/21

Commerce Department Directory

Commerce Building, 14th Street and Constitution Avenue, Washington, D.C., 20230

Phone (202) 783-9200

FREDERICK B. DENT, Secretary of Commerce

SECRETARIAL OFFICERS

WILLIAM W. BLUNT, Acting Asst. Secretary for Economic Development (Economic Development Administration)

HENRY B. TURNER, Asst. Secretary for Administration

(VACANT) Asst. Secretary for Economic Affairs (Social and Economic Statistics Administration)

BETSY ANCKER-JOHNSON, Asst. Secretary for Science and Technology

ROBERT J. BLACKWELL, Asst. Secretary for Maritime Affairs (Maritime Administration)

C. LANGHORNE WASHBURN, Asst. Secretary for Tourism (United States Travel Service)

WILLIAM N. LETSON, General Counsel

LAWRENCE A. FOX, Acting Asst. Secretary for Domestic and International Business

HEADS OF OPERATING UNITS

ROBERT M. WHITE, National Oceanic and Atmospheric Administration

ROBERT A. ANTHONY, Acting, Office of Foreign Direct Investments

ROBERT GOTTSCHALK, Patent Office

RICHARD W. ROBERTS, National Bureau of Standards

ROBERT L. HAGAN, Acting, Bureau of the Census

MARINUS van GESSEL, Bureau of International Commerce

GARY M. COOK, Acting, Bureau of Competitive Assessment and Business Policy

GEORGE JASZI, Bureau of Economic Analysis

JOHN M. RICHARDSON, Acting, Office of Telecommunications

WILLIAM T. KNOX, National Technical Information Service

ALEX M. ARMENDARIS, Office of Minority Business Enterprise

EDWARD D. FAILOR, Social and Economics Statistics Administration

SETH BODNER, Bureau of Resources and Trade Assistance

OMBUDSMAN FOR BUSINESS
Thomas E. Drumm, Jr.

STEVEN LAZARUS, Bureau of East-West Trade

DISTRICT OFFICES

ALBUQUERQUE, N.M., 87101, Room 316, U.S. Courthouse (505) 843-2386.

ANCHORAGE, 99501, 632 West Sixth Ave., Hill Bldg., Suite 412 (907) 272-6531.

ATLANTA, 30309, Suite 523, 1401 Peachtree St., NE. (404) 526-6000.

BALTIMORE, 21202, 415 U.S. Customhouse, Gay and Lombard Sts. (301) 962-3560.

BIRMINGHAM, ALA., 35205, Suite 200-201, 908 S. 20th St. (205) 325-3327.

BOSTON, 02116, 10th Floor, 441 Stuart St. (617) 223-2312.

BUFFALO, N.Y., 14202, Room 910, Federal Bldg., 111 W. Huron St. (716) 842-3208.

CHARLESTON, S.C., 29403, Federal Bldg., Suite 631, 334 Meeting St. (803) 577-4171.

CHARLESTON, W.VA., 25301, 3000 New Federal Office Bldg., 500 Quarrier St. (304) 343-6181.

CHEYENNE, WYO., 82001, 6022 O'Mahoney Federal Center, 2120 Capitol Ave. (307) 778-2220.

CHICAGO, 60603, Room 1406, Mid-Continental Plaza Bldg., 55 E. Monroe St. (312) 353-4450.

CINCINNATI, 45202, 8028 Federal Office Bldg., 550 Main St. (513) 684-2944.

CLEVELAND, 44114, Room 600, 666 Euclid Ave. (216) 522-4750.

DALLAS, 75202, Room 3E7, 1100 Commerce St. (214) 749-3287.

DENVER, 80202, Room 161, New Custom House, 19th and Stout Sts. (303) 837-3246.

DES MOINES, IOWA, 50309, 609 Federal Bldg., 210 Walnut St. (515) 284-4222.

DETROIT, 48226, 445 Federal Bldg. (313) 226-6088.

GREENSBORO, N.C., 27402, 258 Federal Bldg., W. Market St., P.O. Box 1950. (919) 275-9111.

HARTFORD, CONN., 06103, Room 610-B, Federal Office Bldg., 450 Main St. (203) 244-3530.

HONOLULU, 96813, 286 Alexander Young Bldg., 1015 Bishop St. (808) 546-8694.

HOUSTON, 77002, 201 Fannin, 1017 Federal Office Bldg. (713) 226-4231.

JACKSONVILLE, 32207, Suite 129, 4080 Woodcock Drive. (904) 791-2796.

KANSAS CITY, MO., 64106, Room 1840, 601 E. 12th St. (816) 374-3141.

LOS ANGELES, 90024, 11201 Federal Bldg., 11000 Wilshire Blvd. (213) 824-7591.

MEMPHIS, 38103, 710 First American Bank Bldg., 147 Jefferson Ave. (901) 534-3214.

MIAMI, 33130, Rm. 821, City National Bank Bldg., 25 W. Flagler St. (305) 350-5267.

MILWAUKEE, 53203, Straus Bldg., 238 W. Wisconsin Ave. (414) 224-3473.

MINNEAPOLIS, 55401, 306 Federal Bldg., 110 S. Fourth St. (612) 725-2133.

NEW ORLEANS, 70130, 909 Federal Office Bldg., S., 610 South St. (504) 527-6546.

NEW YORK, 10007, 41st Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

NEWARK, N.J., 07102, 24 Commerce St. (201) 645-6214.

PHILADELPHIA, 19107, Jefferson Bldg., 1015 Chestnut St. (215) 597-2850.

PHOENIX, ARIZ., 85004, 508 Greater Arizona Savings Bldg., 112 N. Central Ave. (602) 261-3285.

PITTSBURGH, 15222, 431 Federal Bldg., 1000 Liberty Ave. (412) 644-2850.

PORTLAND, ORE., 97205, 921 S.W. Washington St., Suite 501, Pittock Block. (503) 221-3001.

RENO, NEV., 89502, 2028 Federal Bldg., 300 Booth St. (702) 784-5203.

RICHMOND, VA., 23240, 8010 Federal Bldg., 400 N. 8th St. (703) 782-2246.

ST. LOUIS, 63103, 2511 Federal Bldg., 1520 Market St. (314) 622-4243.

SALT LAKE CITY, 84111, 1201 Federal Bldg., 125 S. State St. (801) 524-5116.

SAN FRANCISCO, 94102, Federal Bldg., Box 36013, 450 Golden Gate Ave. (415) 556-5864.

SAN JUAN, P.R., 00902, Room 100, Post Office Bldg. (809) 723-4640.

SAVANNAH, 31402, 235 U.S. Courthouse and Post Office Bldg., 125-29 Bull St. (912) 232-4321.

SEATTLE, 98109, 702 Lake Union Bldg., 1700 Westlake Ave. North (206) 442-5615.

UNITED STATES
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. GOVERNMENT PRINTING OFFICE
First-Class Mail

U.S.MAIL

CR - MAY 46129
UNIVERSITY MICROFILMS
SERIALS SECTION
300 NORTH ZEEB RD
ANN ARBOR MICH 48106

Before you begin research on your next project, see how you can save time and money with NTISearch

Send for the informative brochure on this new on-line computer retrieval system. Discover how you can have direct access to business and technical reports from over 300 U.S. Government agencies.

Learn how others use these research reports to develop new products . . . increase production . . . reduce operating costs . . . and aid research.

The National Technical Information Service is the only central source of over 300,000 completed research reports and other analyses. Most of them aren't available anywhere else. NTISearch can also review the Smithsonian Science Information Exchange's file of current research projects.

Send for the NTISearch brochure for details now!

MAIL TO:
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL INFORMATION SERVICE
SPRINGFIELD, VA. 22151

☐ I want to learn more about NTISearch.
NTIS-PR-73-03

☐ And about special low-cost NTISearch Information Packages.
NTIS-PR-73-02

☐ Also send me your free booklet, NTIS Information Services.
NTIS-PR-73-00

NAME_____

ADDRESS_____

CITY_____ STATE_____ ZIP_____